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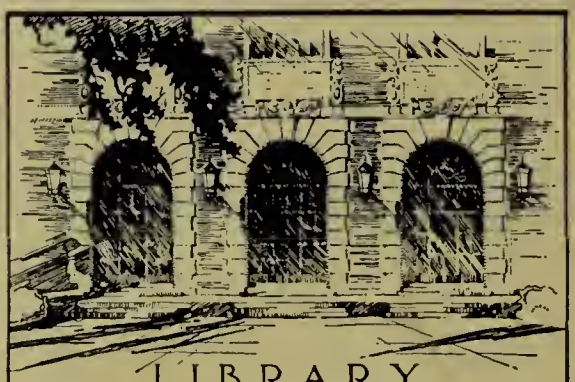

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DOCUMENTS

OF THE

CITY OF BOSTON,

FOR THE YEAR 1877.

IN THREE VOLUMES.

VOLUME III.

CONTAINING DOCUMENTS FROM No. 66 TO No. 109 INCLUSIVE.

Published by Order of the City Government.

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INDEX TO VOLUME I.

Doc.

1—*Mayor's Address* to the City Council. January 1, 1877.
2—*Municipal Register.*
3—*Lamps,* Annual Report of Superintendent of. January 8, 1877.
4—*Auditor's Monthly Exhibit.* January 4, 1877.
5—*Street Commissioners,* Report of the Proceedings of. January 15, 1877.
6—*Weights and Measures,* Annual Report of Sealers of. January 5, 1877.
7—*Chief of Police,* Annual Report of, for 1876.
8—*City Solicitor,* Annual Report of. January 1, 1877.
9—*City Surveyor,* Annual Report of, for 1876.
10—*Public Parks,* Second Annual Report of the Commissioners of, for 1876.
11—*Inspector of Buildings,* Annual Report of, for 1876.
12—*Boston and Cambridge Bridges,* Annual Report of Commissioner of. 1877.
13—*Sewers,* Annual Report of Superintendent of. January, 1877.
14—*Public Lands,* Annual Report of Superintendent of. January, 1877.
15—*City Engineer,* Annual Report of. January 20, 1877.
16—*Public Buildings,* Annual Report of Superintendent of. January 1, 1877.
17—*Auditor's Monthly Exhibit.* February 2, 1877.
18—*License Commissioners,* Report of. February 1, 1877.
19—*Estates owned by City,* Report on. February 8, 1877.
20—*Municipal Expenses,* Report of Joint Special Committee on Retrenchment of. February 19, 1877.
21—*Middlesex Railroad.* Thirteenth location. February 19, 1877.
22—*Salaries,* Report of Joint Standing Committee on. February 19, 1877.
23—*Printing,* Request for an Additional Appropriation for. February 19, 1877.
24—*Commercial Street,* Report of the Board of Street Commissioners on the Widening of. February 19, 1877.
25—*Stony Brook,* Report of the Board of Street Commissioners on the subject of. February 19, 1877.
26—*Boston Common,* Evidence taken at the hearing before the Joint Standing Committee on Common and Public Grounds on the petition of the Massachusetts Charitable Mechanics' Association for leave to erect a building on. 1877.
27—*Auditor's Monthly Exhibit.* March 2, 1877.
28—*Auditor's Estimates.* 1877–8.
29—*Highland Street Railway* location, Ald. Fitzgerald's motion. March 5, 1877.
30—*Metropolitan Railroad* location, Report on. March 5, 1877.
31—*Finance,* Report of Committee on. March 7, 1877.
32—*River Street,* Resolve and Orders for Discontinuances on. March 26, 1877.
33—*River Street,* Resolve and Order for Widening. March 26, 1877.
34—*South Boston Railroad.* Thirteenth location. March 12, 1877.
35—*Highland Street Railway* location, Report on. March 19, 1877.
36—*Highland Street Railway.* Seventh location. March 19, 1877.
37—*Inspector of Milk,* Eighteenth Annual Report of, for 1877.
38—*Streets,* Annual Report of Superintendent of. January, 1877.
39—*Auditor's Monthly Exhibit.*

111915

40—*Auditor's Estimates*, Report of Joint Special Committee on. April 5, 1877.
41—*Middlesex Railroad.* Fourteenth location. April 23, 1877.
42—*Metropolitan Railroad.* Forty-sixth location. April 23, 1877.
43—*South Boston Railroad.* Fourteenth location. April 23, 1877.
44—*Parks*, Report of Special Committee on subject of. May 7, 1877.
45—*Auditor's Monthly Exhibit.* May 10, 1877.

INDEX TO VOLUME II.

Doc.
46—*Record Commissioners*, Second Report of. April 30, 1877.
47—*Leases*, Report of the Auditor of Accounts on. May 14, 1877.
48—*Metropolitan Railroad.* Forty-seventh location. May 14, 1877.
49—*Public Institutions*, Twentieth Annual Report of the Board of Directors for. May 18, 1877.
50—*Metropolitan Railroad.* Forty-eighth location. May 21, 1877.
51—*Mount Hope Cemetery*, Annual Report of the Trustees of. May 22, 1877.
52—*Receipts and Expenditures*, Annual Report of Auditor of Accounts on, for the financial year 1876–77.
53—*East Boston Ferries*, Report of Directors of. May 17, 1877.
54—*Sinking Funds*, Annual Report of Commissioners on. May 28, 1877.
55—*Fire Commissioners*, Fourth Annual Report of, for 1877.
56—*Auditor's Monthly Exhibit.* June 4, 1877.
57—*Water Board*, First Annual Report of, for 1877.
58—*Dogs*, Report on muzzling and killing of. June 5, 1877.
59—*Overseers of the Poor*, Annual Report of, for 1877.
60—*Dorchester Trust Funds*, Annual Report of, for 1877.
61—*City Hospital*, Thirteenth Report of the Trustees, for 1877.
62—*Middlesex Railroad.* Fifteenth location. June 19, 1877.
63—*Cedar Grove Cemetery*, Ninth Annual Report of Commissioners of, for 1877.
64—*East Boston Ferries*, Report of Committee on the subject of abolishing tolls on. July 2, 1877.
65—*Oration.* Delivered before the City Council and Citizens of Boston, on July 4, by Hon. William Wirt Warren.

INDEX TO VOLUME III.

Doc.
66—*Public Library*, Twenty-fifth Annual Report of the Trustees of, for 1877.
67—*Board of Health*, Fifth Annual Report of, for 1877.
68—*Auditor's Monthly Exhibit.* July 7, 1877.
69—*Streets*, Ordinance relating to the Occupation of for Building Purposes. July 9, 1877.
70—*Improved Sewerage*, Report of the Joint Special Committee on. July, 1877.
71—*Metropolitan Railroad.* Forty-ninth location. July 16, 1877.

72—*Middlesex Railroad.* Sixteenth location. July 16, 1877.
73—*Tax Titles,* Ordinance concerning. July 24, 1877.
74—*Mystic Valley Sewer,* Orders taking land for the construction of. July 26, 1877.
75—*Auditor's Monthly Exhibit.* August 3, 1877.
76—*Inspection of Prisons,* First Semi-annual Report of the Committee on. August 27, 1877.
77—*Auditor's Monthly Exhibit.* September 5, 1877.
78—*Inspection of Lime,* Report on. September 12, 1877.
79—*City Registrar,* Annual Report of, for 1876.
80—*Streets,* An Ordinance for the Occupancy of for Building Purposes. October 2, 1877.
81—*Auditor's Monthly Exhibit.* October 3, 1877.
82—*Blackstone-square Accident,* Report on. October 8, 1877.
83—*Explosive Compounds,* Report of the Committee on Ordinances on the Transportation and Storage of. December 31, 1877.
84—*Common and Squares,* Request for an Additional Appropriation for. October 18, 1877.
85—*Inebriates in City Institutions,* Report of Commissioners on the Treatment of. October 17, 1877.
86—*Stony Brook,* Report of the Joint Special Committee on the Improvement of. November 5, 1877.
87—*Common and Public Grounds,* Report on Department of. December 6, 1877.
88—*Auditor's Monthly Exhibit.* November 5, 1877.
89—*Metropolitan Railroad.* Fifteenth location. November 5, 1877.
90—*Highland Street Railway.* Eighth location. November 5, 1877.
91—*South Boston Railroad.* Fifteenth location. October 29, 1877.
92—*Roxbury Canal,* Report of the Joint Standing Committee on Health in relation to the Abatement of the Nuisance in and about. November 12, 1877.
93—*Middlesex Railroad.* Seventeenth location. November 12, 1877.
94—*Members of the City Council.* An Ordinance to provide for the payment of expenses incurred by them in the performance of their official duties. November 15, 1877.
95—*Auditor's Monthly Exhibit.* December 5, 1877.
96—*Lamps,* Report of Committee on petition of M. C. Graham and others for leave to lay gas-mains and pipes in the streets. December 3, 1877.
97—*Metropolitan Railroad.* Fifty-first location. December 10, 1877.
98—*South Boston Railroad.* Sixteenth location. December 10, 1877.
99—*Union Freight Railway.* Third location. December 10, 1877.
100—*Bathing,* Annual Report of Committee on. December 24, 1877.
101—*School Committee,* Annual Report of, for 1876.
102—*Pawnbrokers,* Report of the Superintendent of. December 15, 1877.
103—*Metropolitan Railroad.* Fifty-second location. December 24, 1877.
104—*Parks,* Sixth Report of the Board of Commissioners on. December 29, 1877.
105—*Inspectors of Prisons,* Second Semi-Annual Report of. January 5, 1878.
106—*Highland Street Railway.* Ninth location. January 5, 1878.
107—*Common Council.* Final Proceedings. January 3, 1878.
108—*Board of Aldermen.* Final proceedings. January 5, 1878.
109—*Publications,* Second Annual Bulletin of. December, 1877.

CITY OF BOSTON.

City Document No. 66.

TWENTY-FIFTH ANNUAL REPORT OF THE TRUSTEES OF THE PUBLIC LIBRARY. 1877.

PUBLIC LIBRARY, June 30, 1877.

His Honor Frederick O. Prince, Mayor of the City of Boston:—

SIR, — I have the honor to transmit to you, herewith, the Twenty-fifth Annual Report of the Trustees of the Public Library, prepared in obedience to the fourth section of the Ordinance of 1869, relative to the Public Library.

Very respectfully,

JUSTIN WINSOR,
Secretary of the Board of Trustees.

In conformity with the requirements of the ordinance concerning the Public Library, the Trustees have the honor to present to the City Council their Twenty-fifth Annual

REPORT;

being the eighth made under the last ordinance, and including the results of administration for the year ending on the 30th April last.

There are also submitted herewith, two reports: one of the Examining Committee, which consists for the present year of Gilbert Attwood, Esq., James R. Chadwick, M. D., Rev. James Freeman Clarke, John C. Gray, Jr., Esq., and Mrs. Kate Gannett Wells, with George B. Chase, Esq., of the Board of Trustees, as Chairman; the other, of the Superintendent, with the usual full tabulations of the condition of the Library, and of the details of its work during the year. Further reference to these documents will be made later in the present report.

After the lapse of a quarter of a century, and when this institution has become an integral part of the daily life of a large portion of the community, it is just to the original

Trustees to examine anew the principles upon which it was established, to see how far the reasonable expectations of its projectors have been realized, and to state what experience has added upon their original outlook.

By a vote of the City Council, passed on the 30th June, 1852, the Trustees of the Public Library were requested to report upon the objects to be attained by the establishment of a public library, and the best mode of effecting them.

On the 6th July following the Trustees made a full and exhaustive report upon the questions presented for their consideration. The document was substantially from the brain and hand of Mr. Geo. Ticknor, in which he evolved the plan which he considered vital to success, and which was unanimously recommended by a large committee, consisting of members of the City Government and the whole Board of Trustees.

In considering this report, one may first notice the key-note of the movement: "Although the school, and even the college and university are, as all thoughtful persons are well aware, but the first stages in education, the public makes no provision for carrying on the great work. It imparts, with a noble equality of privilege, a knowledge of the elements of learning to all its children; but it affords them no aid in going beyond these elements. It awakens a taste for reading, but it furnishes to the public nothing to read. It conducts our young men and our young women to that point where they are qualified to acquire from books the various knowledge in the arts and sciences which books contain; but it does nothing to put these books within their reach."

These patent necessities the Trustees proposed to reach by forming a Library which should embrace four classes of publications:—

First. — Books that cannot be taken out of the Library, comprising books strictly of reference, cyclopedias, dictionaries, public documents, and works which, from their rarity and costliness, cannot easily be replaced.

Second. — Books that but few persons will wish to read, of which, therefore, but one copy will be kept, but which should be permitted to circulate fully.

Third. — Books that will be often asked for. By following the popular taste, — unless it should ask for something unhealthy, — one may hope to create a real desire for general reading.

Fourth. — Periodical publications, probably excluding newspapers, except such as may be given by their proprietors.

Having thus indicated the classes of works of which they considered the acquisition desirable, they proceed to say that "the establishment of such a library should be made without any sharply defined plan, but to be governed by circumstances as they arise. The commencement should be made, of preference, in a very unpretending manner: erecting no new building, and making no show; but spending such moneys as may be appropriated for the purpose chiefly on books that are known to be really wanted, rather than on such as will make an imposing, a scientific, or a learned collection; trusting, however, most confidently, that such a Library in the long run will contain all that anybody can reasonably ask for. For, to begin by making it a really useful library; by awakening a general interest in it as a city institution, important to the whole people, a part of their education, and an element of their happiness and prosperity, is the surest way to make it at last a great and rich library for men of science, statesmen, and scholars, as well as for the great body of the people, many of whom are always successfully struggling up to honorable distinctions, and all of whom should be encouraged and helped to do it."

How far these principles, then first declared, proved to be wise and prophetic, the statistics of this and of other libraries formed upon the same basis will abundantly indicate.

The next important consideration was the condition under which the proposed collection of books might be loaned for home use. "All officers of the city government, therefore, including the police, all clergymen settled amongst us, all city missionaries, all teachers in our public schools, all members of normal schools, all young persons who have received medals or other honorary distinctions on leaving our grammar and higher schools, and, in fact, as many classes as can safely be entrusted with it as classes, might enjoy, on the mere names and personal responsibility of the individuals composing them, the right of taking out freely all books that are permitted to circulate, receiving one volume at a time. To all other persons, women as well as men, living in the city, the same privilege might be granted on depositing the value of the volume, or of the set to which it may belong; believing that the pledge of a single dollar, or even less, may thus ensure pleasant and profitable reading amongst us.

"In this way the Trustees would endeavor to make the Public Library of the city, as far as possible, the crowning glory of our system of city schools; or, in other words, they would make it an institution fitted to continue and increase the best effects of that system by opening to all the means

of self-culture through books, for which these schools have been specially qualifying them."

The closing sentence is equally striking: "Should the expectation of the Trustees be realized, and should it (the library) be found to supply an existing defect in our otherwise admirable system of public education, its future condition may well be left to the judicious liberality of the city government and the public spirit of the community."

These were the facts, theories, and principles upon which this library was projected. The liberty of use was, however, upon its opening largely increased by extending its freedom, in the regulation adopted 8th November, 1853, to "all inhabitants of the City of Boston, who may be duly certified to the Librarian," after signing a promise that they will observe all the existing rules and regulations of the Library.

One sentence in this report proved immediately prophetic. The Trustees "are inclined to think that, from time to time, considerable collections of books will be presented to the library by citizens of Boston, who will take pleasure in requiting in this way the advantages they have received from its public institutions, or who for any other reason are desirous of increasing the means of public improvement." In consequence of this suggestion, Mr. Joshua Bates, of London, who had spent a portion of his early life in Boston, made his first noble donation of $50,000, the income of which was to be devoted to the purchase of books of a permanent value.

In fact, the hope expressed by Mr. Ticknor had to some extent been realized. The contributions to the Library in additions to its variety and value of books had found expression in two forms already, and gradually extended to others more important. In the first inception, by the gift of numerous volumes, and of moneys to be expended in the purchase of books; and afterwards in the donation or bequest of sums to be funded, the interest of which would be in trust for the purchase of books; in the bestowal of libraries previously collected by private individuals; in the gift of volumes or series of publications from the public spirit of individuals; in the gift of moneys, the whole or the interest of which could be expended at the option of the Trustees; and, further, in services for the Library having a money value, but made without charge. In these forms public sympathy and support have been manifested. The donation of Mr. Bates placed the institution upon a firm foundation, and the recognition of the fact and the subsequent liberality of its friends have been in entire

harmony with the first strong sympathy which gave support to its earliest struggles to accomplish its destined work. In fact, this was the first Library organized for public use on this continent which was disposed to take in a large way to itself individual contributions, and to hold sacredly, according to the expressed wishes of the donor, the gift or bequest upon the exact terms required, whether or not subject to the conditions of entire freedom. Other libraries in the country, already large, were either general collections with no provision for specialties, or founded by individual generosity and named for the founder, which precluded other names to be of sufficient value in the connection to tempt those otherwise disposed to assist in a result of which the only credit would redound to the founder. In this Library every book given singly would bear forever, or until the book was extinct with use, the name of the donor, and every collection of books made for special objects, or for the varied pursuits of its donor, could be kept together in memory of the scholar or scientist who had made these works his companions and servants during his lifetime, and was desirous that their use should be systematically continued in the future.

Gf the obligations of the institution to these benefactors, the Trustees cannot speak too warmly in gratitude. In the classifications of generosity it is most agreeable to call attention to the assistance rendered to the stores of the collection by the following public-spirited individuals, — as well as by corporate bodies; the enumeration naturally divides itself into four principal classes: —

First. — Gifts of books in considerable numbers or of large value.

1841 and 1847. The City of Paris, by means of the system of international exchange projected and put into operation by M. Vattemare.

1849. From Hon. Robert C. Winthrop and J. D. W. Williams.

1850. From Edward Everett.

Previous to 1853. From George Ticknor and John P. Bigelow.

1854. Charles G. Putnam and John Ware.

1855. George S. Hillard and Jonathan Phillips.

1856. Walter Channing and Thomas G. Appleton.

1857. Lemuel Shattuck.

1858. Miss Elizabeth Belknap and Joshua Bates.

1860. William Gray.

1867. William Everett.

1868. Jonathan French and James W. Paige.
1869. John C. Ropes.
1872. W. C. Gannett.
1873. Henry R. Dalton and the Massachusetts Medical Society.
1874. John J. Dixwell.

The largest donors, after Mr. Bates, were Mr. George Ticknor, who, in addition to his bequest of his special library, gave 4,417 volumes; Mr. Edward Everett, who, at various times presented 1,688 volumes; and the Massachusetts Medical Society, who contributed their own medical and surgical collection, 1,887 volumes, to that department of our own library, now the most extensive in New England.

Second. — Gifts of Libraries. In 1858, the Bowditch Library and the English Patents, through the interposition of Mr. Joseph Story. In 1860, the Library of Theodore Parker. In 1866, the Prince Library, placed on deposit. In 1871, the Ticknor Library of Spanish and Portuguese books. The Sumner Library, and East Boston Library Association's collection in 1870. The Mattapan Library of South Boston in 1872. The Dorchester and Milton Library in 1875.

Third. — Benefactions of money to be expended in books: In 1852, James Brown, Samuel Appleton. In 1853, James Nightingale, J. Ingersoll Bowditch. In 1855, Mrs. Sally I. K. Shepard. In 1865, J. L. Stoddard.

Fourth. — Gifts and bequests of money to be funded and interest used in purchase of books: In 1850, J. P. Bigelow, $1,000. In 1852, Joshua Bates, $50,000. In 1853, Jonathan Phillips, $10,000. In 1859, Abbott Lawrence, $10,000; Mary P. Townsend, $4,000. In 1861, Jonathan Phillips, in addition, $20,000. In 1863, Franklin Club, $1,000. In 1871, George Ticknor, $4,000, for increase of his special collection. In 1874, Henry L. Pierce, $5,000, — whose donation was made on condition that the expenditure of principal as well as interest was subject to the judgment of the Trustees.

As a result of this combination of municipal support and of private generosity, the Library possessed, on the 1st of May, 312,010 volumes, of which 242,885 were deposited in the Central Library, and 69,125 were distributed among its six branches. During the twenty-five years of its history there has been drawn from the City Treasury, for the purchase of books and periodicals, the sum of $315,482.05, of which $124,410 was derived from the interest of the trust-funds belonging to the Library, and in keeping of the City

Treasurer. Besides this Mr. Bates had expended $50,000 in the purchase of books; so that the real cost to the tax-payers of the city for the contents of this magnificent collection has been only $191,072.05.

Of the books it is found that 110,794 volumes have been received as gifts, without counting the 26,825 obtained without any direct expense, by the annexation of Charlestown and Brighton, and the consequent ownership of the Public Libraries already established. The expenditure of public moneys for books is therefore represented approximately by 175,425 volumes purchased therewith, beside many thousand no longer existing because worn out in legitimate use.

But pecuniary statements can give no proper presentation of the absolute material value of this great Library. The purchases made under the direction of Mr. Bates, the Parker and Bowditch Libraries, the unique Spanish and Portuguese Library of Mr. Ticknor, the priceless Prince collection, the Shakespearian and general wealth of the Barton Library, and the special mathematical importance of the Bowditch Library cannot, as a whole, be measured by any money-value.

But the friends of this institution have not been satisfied by the simple presentation of books. They have adorned its interior and increased its attractions by the gifts of works of art, of themselves alone a permanent interest to all visitors. In 1858 there were received from Mr. J. T. Eldridge and others, the statue of the Arcadian Shepherd Boy, by Mr. W. W. Story, and from Mr. Edward Brooks an original portrait, by Duplessis, of Benjamin Franklin, the representative Bostonian of his age. In 1859 Mr. Josiah Quincy and others gave to the Library, to be forever kept within its walls, the great picture by John Singleton Copley, representing King Charles I. of England demanding from the House of Commons the five recusant members in Jan., 1642. Mr. Gardner Brewer, a constant friend of the institution, presented to it, in 1865, Toschi's group in marble of the Holy Family, and in 1872 Greuze's portrait of Franklin, another and important study of the marked features of that distinguished patriot. In 1869 Mr. Thomas G. Appleton, in addition to his previous generous help, covered the walls of our public rooms and filled our portfolios with the rare engravings of Cardinal Tosti's collection, which had been purchased by him for the purpose in Rome.

Of portraits and portrait busts, there have been given to the Library busts of its two first presidents; of Mr. Everett, in 1863, and of Mr. Ticknor, in 1868. The Baroness Van de Weyer, in 1866, presented the portrait and bust of her father,

Mr. Joshua Bates, our greatest benefactor. Besides these the Library possesses a bust by R. S. Greenough, of J. Lothrop Motley, whose recent death is so deeply mourned by two continents, the offering of Thos. B. Curtis, Esq.; Young's portrait of Mr. Everett, given in 1870; and Wight's half-length of Charles Sumner, painted in 1856, and presented to the city in 1874.

The patriotic reverence for the great names of history associated with distinguished services to the City of Boston, has added materially to our treasures. In 1876, the city came into possession, through a subscription started by one of the earliest and most constant friends of the Library, the Hon. Robert C. Winthrop, of the original gold medal voted by Congress to General Washington in commemoration of the evacuation of Boston by the British troops in 1776. The condition of the gift of this unique and precious national as well as local memorial was that it should be kept forever in the Public Library. Before this, however, there had been presented, in the year 1866, as the result of another subscription, the magnificent silver vase given by the citizens of Boston to Mr. Webster, in 1835, in recognition of his unsurpassed intellectual efforts in the Senate of the United States in support of the Constitution and of the Union. It was purchased after his death from the representatives of his family, with their full approbation of the place of its final deposit. There is also another national memorial, purchased at the Boston Sanitary Fair, by two hundred subscriptions of five dollars each,— the paroles of General Burgoyne and General Riedesel, and the officers of their army, signed after their arrival at Cambridge, whither they were conducted after their surrender to General Gates at Saratoga. It had been the property of J. Wingate Thornton, Esq., who had presented it to the Fair on condition that it should be sold for $1,000, and thereafter be deposited in the Boston Public Library.

These freewill offerings to decorate the building, to increase the value and variety of its contents, and to illustrate the history of the city and country, will not fail to act as incentives to similar actions in the future.

The gathering of the Library and its varied treasures having been considered, its relations to the public at its opening, and its consequent use, with the changes of administration which have been gradually adopted, demand examination and notice.

It is safe to say that no substantial change of much importance has been made in the freedom with which books were distributed. In the additions looking towards a more

entire liberty, required under the ordinance of 1852, which made the duty of the Trustees "to adopt such measures as shall extend the benefit of the Library as widely as practicable through the community;" but subsequently changed in 1869 to "as widely as possible among the citizens and residents of Boston," alterations were made in the regulations regarding some of the classes which might avail themselves of the uses of books. No change was made in the first class, which permitted any person, with the consent of the Librarian, to consult any book in the building; but in the other class, having reference to loans, the ages of possible borrowers were diminished from 18 to 16 years, and by the ordinance of 1869, in order to make the more important scientific, historic, and special treatises in the collection contribute to the general education and advancement of the whole community, the Trustees were empowered, on the suggestion of the President of the Board, "to grant, for a limited period, privileges in the Library to other individuals not inhabitants of Boston, when in their judgment the public interests will be advanced." But in this same ordinance a change came which extended more fully the same liberties over wider districts. Authority was given the Trustees "to establish branch libraries of popular and useful books and periodicals in sections of the city distant from the main collection, provided the same be not established until the necessary appropriations be duly voted by the City Council, and the estimates for such appropriations be made a part of the annual estimates of the City Auditor. For this purpose they shall be authorized to provide suitable rooms, to appoint the necessary attendants, and to establish regulations for the same."

In the year 1870, the reference for every applicant for library privileges was reduced to a single individual, who should testify in needful cases, without responsibility for any loans, that the person was to be found at the address which was part of the application. In the experience of eighteen years it had become gradually apparent that one name was sufficient for library administration.

The application of these principles to the establishment of branches has been productive of the most signal and brilliant results. The Trustees, with the consent of the City Government, have established four branches, and the annexation of Charlestown and Brighton added two additional libraries. The total contents in those collections, on the 1st of May, was 69,125 volumes, which were circulated in the previous year among 593,222 borrowers, without diminishing, or, rather, from their inception, with a regular

increase of the use of the similar attractions of the lower hall of the Central Library, which use has grown from the establishment of the first branch at East Boston in 1871, from 231,110 to 405,732 issues in 1876–77.

In 1854 the suggestion of Mr. Ticknor, that books of a suitable character, recommended for purchase, should be added to the Library, took a practical and systematic form. Under this privilege it is not surprising that many works were asked for which were either beyond the pecuniary means of the Library, or out of proportion in some special department, or rarities difficult to obtain, or works absolutely out of print. Notwithstanding the opportunity afforded to the public for the term of fourteen years, but 1,711 works were applied for; and the records do not show what proportion of these was acquired. In the eleven years since that period there have been recommended 18,605 works, of which there were, at the time of asking, already in the library 4,001 works, and 9,172 have been received since. The value of this direct connection between the reader and student and the Library has been very important, inasmuch as followers of special departments of knowledge have watched for the appearance of publications in these departments, of which the Library has been kept informed, and thus enabled to keep pace with the necessities of professional and educational scholarship.

From the beginning of the Library the books were bought under a system arranged by Mr. Ticknor. Lists were prepared by him of foreign publications suitable for its needs, and forwarded first to Mr. Bates, and afterward to the agents appointed in Europe. Works printed in the English as well as foreign languages were purchased by him until the year 1856, when the duty of acquiring books in English and new works in French was mainly assigned to Mr. Greenough, who attended to the work of the examination of sale catalogues, and of direct purchase, until 1868. From the time when Mr. Jewett became Superintendent, in 1858, the foreign lists, relating to the standard literature of the past, were intrusted to his care. From the year 1868, all books have been bought under the system established, with the consent of the book committee, by the present Superintendent.

The great development of the administrative force of the Library, attendant upon the enormous increase of its volumes and their facility of use, the great variety of their subjects, and the corresponding public demand for their distribution, have not entirely received the appropriate recognition from the City Government which the interests of the great community of readers would have naturally suggested. This

institution is the one of the educational conditions of the city which from its growth and value must be the most permanent. Schools, scholars and forms of teaching change from day to day. The book and the library remain as the indicators and exponents of the progress of learning and the arts. When it became apparent that the tree had taken root, when it was to be helped, watered, and kept in vigorous growth by the intelligent assistance of the City Government, there came a failure to perceive the extent of the direct accountability which had been placed upon the Trustees, which was mortifying and unexpected. In the main, the city had been, and it has continued to be, the best friend and support of the institution. But when the suggestion came that a special conservative control should be exercised in the future, irrespective of annual elections, the City Council refused to relinquish any considerable or important portion of their power. Every condition relative to the administration of the Library had been received and carried on as a trust. No person had been appointed to any position except upon their presumed merits. No person has been appointed up to to-day upon any official interposition, or upon any personal influence, irrespective of merit and fitness.

When the Library, in its rapid progress, indicated the necessity of a proportionate growth of administrative and bibliothecal powers, a proposal was made to the City Government to change the ordinance under which the institution was governed, into a new form better adapted to its present necessities. In order to obtain a permanency of the principles already indicated in this brief statement, it was felt to be essential to the Library that a Superintendent should be appointed, who should do the general work which had hitherto been performed by members of the Board of Trustees, but which in the future should be made the employment and the duty of some accomplished person who would devote his whole time to the proper development, arrangement, and presentation for public and individual uses of the treasures of the institution then in possession and to be acquired afterward.

On the 2d of November, 1857, the Trustees, by the hand of Mr. Everett, first called the attention of the City Council to the precarious tenure of the most important administrative officer of the Library. The Librarian up to that date had been chosen "by the concurrent vote of the two branches of the City Council. The Trustees conceive that this is too precarious a tenure for such an office. The Trustees are not aware that it has ever been deemed expedient in any part of the country to subject the teachers or the librarians in our

universities and colleges to the uncertainty of an annual election, by public bodies partaking largely of a political character. As the Trustees are directly responsible to the city for the condition and working of the institution, and as the duty of making the requisite regulations for its management, and of seeing that they are carried into effect, devolves on them, they are of opinion, for obvious reasons, that the appointment of the Librarian, and of any other officer who may be established in pursuance of the foregoing recommendation, should be devolved upon the Board."

In consequence of this recommendation, the City Council gave to the Board the power of appointment of the Superintendent, subject, however, to the approval of the Council, and to a rate of remuneration fixed by the same power. The tenure of office became so uncertain under this ordinance, and the future welfare of the Library was so much at risk, that, in 1863, the Trustees again called the attention of the Council to the danger of the situation, under the enlightened and trusted conclusions of the President, Mr. Everett, while giving voice to the unanimous opinion of the Board, that "as the Trustees are responsible to the City Council and the public for the care and administration of the Library, it seems but just, and it is in conformity with usage in other departments of the government, that they should be entrusted with the power of electing those officers, subject at all times to the removal of the City Council."

In response to this suggestion the City Council relinquished the power of confirmation of the Superintendent or Librarian, but still kept in its hands the fixing of the salary of the principal officer, which it has retained up to the present time, irrespective of the unanswerable presentation of the question presented by Mr. Ticknor, as President of the Board of Trustees, in 1865. The history of the institution since, with its accumulated experience, and notwithstanding the conceded necessity of the most intelligent and independent adaptation of every fibre of its organization to popular education and improvement, has not changed this conclusion of the government. The responsibility of management still rests by ordinance with the Trustees, but they are denied the power of executing the duties assigned them in giving a suitable compensation for services, of which, from their nature, they only can be the correct and proper judges.

This fact in the history of the Library is not stated in the way of complaint. The Trustees cannot be sufficiently grateful for the constant liberality of the government which, for twenty-five years, has enabled them to keep safely the donations of its benefactors, and by its generous help in the

purchase of popular books to fulfil one of the most important functions of the institution. Besides this, in what was even more important than the largest collection of volumes in the country, it has appropriated funds for skilled labor, for personal attendance, and for suitable catalogues whereby such books as were in the possession of the Library became available for the largest number of people in the most intelligent and best way.

What the duties and qualifications of the Superintendent of a great Library should be, are set forth with entire clearness in Mr. Ticknor's communication. Suffice it to say, that, in the history of the institution, after the continuation of the services of Mr. Capen as Librarian,—a position occupied by him from the opening of the Mason-street Library, — it was found expedient for the interests of the now important collection to appoint Mr. Chas. C. Jewett the Superintendent, in 1857. Mr. Jewett brought to the office the knowledge of the bibliographer, the experience of the book-buyer in the great marts of Europe, a perception of the needs of American educators and education, the tendencies and wants of specialists, and above and beyond this a system of rendering a collection of books useful to its readers by a form of catalogue original and superior to any previously existing. Under this system were printed the first index of the Bates Hall Library, in 1861, and the supplement, in 1866, which gave to the institution not only the local attention of scholars and of the gatherers of public and private libraries, but a recognition in the older world most flattering to the perception and practical talents of the originator of the system and to the institution which had placed it in the service of the great body of readers. Previous catalogues had been usually mere lists of books, either arranged alphabetically under the titles of books or the names of their authors, with the occasional addition of divisions into subjects, under which, with more or less minuteness, the student could find in one or other division with diligent labor the book or books desired. In the plan of Mr. Jewett, the alphabetical, or as it is now termed the dictionary, arrangement afforded the opportunity to the seeker to find the works wanted, if contained in the Library, upon the subjects to be explored, without knowing the name of any author or the title of any book on the subject, by seeking the subject in its alphabetical place. This was an enormous boon to the general reader. During the superintendency of Mr. Jewett, the Library grew from 34,896 to 136,080 volumes, and from a circulation and use of 89,423 to 208,963 volumes. His eminent services to the institution terminated with his death.

Of the obligations of the Library to his successor, the present Superintendent, the Trustees cannot speak too strongly. The Library has increased since his appointment, with the addition of the six branches, to the position of the largest collection on the continent, now numbering 312,010 volumes, and having in nine years increased its circulation more than five-fold, — having distributed and placed in the hands of readers during the past year 1,140,000 volumes. The requirements of the office have been most completely filled, but at the expense of the most unremitting labor at the Library and at home, and beyond human strength to sustain for a series of years. The scholastic and administrative demands of this great institution, with its six branches, have not only been fully met, but the methods of public contact and usefulness have been simplified, as well as extended and improved. The catalogue, under his direction, has received a new value, — having become not only a key to the books, but a manual for readers and scholars. It is proper to say that the class lists printed for the Boston Library have given it a reputation and a following both in America and in Europe, most flattering to a city, now more extensively known throughout the world by this than by any other of its institutions.

In the recital of these details of the growth of this great Library, the Trustees cannot but feel that there are abundant reasons to congratulate the community that sufficient material support was given it to enable the previously untried experiment, of full trust in the honesty of borrowers, to achieve a triumphant success.

In considering the report of the Examining Committee for the past year, and its criticisms and recommendations, it is proper at the outset to state that this body of citizens is an independent formation required by the ordinance, and consists of five citizens at large, with a member of the Board of Trustees as chairman. The addition of this official was for the purpose of giving, through a member of the governing board, such information to the committee as they might require, to further such examinations as they might elect to make, and to show how the methods of administration could be fully investigated and understood. Of late years, a member of the body, selected by themselves, has written the report, in order more distinctly to develop their own views of the results of their examination. This course has been pursued during the present year, and the report is from the hand of James R. Chadwick, M. D.

The topics which are mainly presented for consideration embrace the unsuitable and contracted accommodations of the

building for its present necessities, and the importance of an early and intelligent preparation for its future wants; the system of administration, and the propriety of adequate remuneration for its officers, and the urgent need of suitable ventilation for the whole building.

The question of when and how there shall be added to the present structure sufficient provision for its immediate growth and for the convenience of the public, has formed a part of the report of the Trustees for the past two years; notwithstanding the alterations and additions to the building (1872 and 1874) had given shelf-room for 125,000 additional volumes and provision for the administrative staff, the purchase of the adjoining estate by the city in 1872 was with the view of meeting the approximate needs of the institution. It is probable that if the pecuniary condition of the community had been more prosperous at any time since the acquisition of the property, the building would have already been erected and have fulfilled its objects. But the growth of the Library and its public uses have advanced to such a degree as to show that such addition would merely serve a temporary purpose. Indeed, the accommodations which it could afford would be entirely absorbed by the present state of the institution. The Examining Committee propose a plan of extension which is eminently worth the consideration of the City Council, — as it could be carried out at a less expense than similar room could be obtained elsewhere, with more convenience to the public, with sufficient amount of light and ventilation, and with the necessary isolation afforded by wide streets in front and on one side, with the power of separation from adjacent buildings in the rear, so essential for protection in case of fire.

The questions relative to the administration of the Library have been brought to the attention of the City Council earlier in this report. It is sufficient here to say that the conclusions of the committee were obtained without consultation with the Trustees or Superintendent.

It is hoped that some action may result from the intelligent examination of the committee of the ventilation of the building, including the irregular and injurious distribution of heat and cold, owing to the peculiarities and want of provision in its structure. Much public complaint has been made, and private suffering created and endured, from this inattention to the simplest laws of comfort and health. In again asking the attention of the City Council to this crying evil, the Trustees would rejoice to learn that the practical suggestions of experts could be immediately carried out to a full attainment of the result desired.

In addition to the special Library considerations pertaining to the administration of the institution during the past year, the Superintendent, in his report to the Trustees, passes in review the history of the Library during the decade in which he has held his office, with such large results to its progressive advance in popular use and public estimation. The details may not be recapitulated here, — for they will be read with deep interest not only by the friends of the Library at home, but by every librarian and manager of cognate free libraries throughout the country. It furnishes an example for every organization having in view the end of making every book worthy of use, useful.

Referring to the results achieved by the last year's work, in presenting to the City Council and to their fellow-citizens the usual summary of administrative detail, no indication of diminished interest or value will be shown. The use develops a varying but progressive ratio in proportion to the power to be of use.

The Central Library in Boylston street now holds 242,885 volumes, divided between 35,478 in the popular branch and 208,441 in the Bates Hall collection; the branches contain 69,125 volumes. The total contents are 312,010 volumes, — an increase for the year of 15,169 volumes.

The Libraries were open during the year for popular use and consultation 306 days. The loans and hall-use of the Bates Hall collection advanced from 114,329 volumes in the previous year to 141,618 volumes, — a gain of nearly 24 per cent. The Lower Hall issued to borrowers 405,732 volumes, against a previous circulation of 348,842, — showing an increase of nearly 17 per cent., — a result most surprising when the confined and unsuitable quarters to which the public are admitted are taken into consideration. From the six branches there were issued 593,202 volumes. The following table gives the number of books in each of the popular Libraries, and their comparative use during the present and past year: —

	No. of Vols.	Use.	Av. per Vol.	Last Yr.
Lower Hall, Boylston st.,	35,478	405,732	11.35	9.9
East Boston Branch,	9,643	102,627	10.53	10.06
South " "	8,178	135,179	16.53	16.3
Roxbury "	12,535	146,429	11.71	9.4
Charlestown "	18,084	106,816	5.90	4.93
Brighton "	12,317	29,792	2.42	2.08
Dorchester "	8,147	71,979	8.83	9.29

In considering these figures it must be remembered, in

making comparisons that each popular Library differs from the other not only in convenience of access, but in the character of the volumes composing the collection. Three of the branches have stood in immediate need of new catalogues. East Boston, South Boston, and Charlestown would show a larger percentage of distribution if borrowers could learn with accuracy what books are within their reach. Inadequate accommodation also diminishes the popular attendance at South Boston. Notwithstanding the rapid growth of the Fellowes Athenæum in books of a solid character, which make the collection similar to that gathered in the Bates Hall, to the great credit of the Roxbury readers and students, the popular average has increased in the year nearly 25 per cent.

It is not surprising that the great percentage of increase in circulation which the last year showed over the previous year could not be sustained. The aggregate issue of 1875–6 was 947,621 volumes, while that of 1876–7 has been 1,140,572 volumes. Though the increase in use was 192,951 volumes, a larger number than ever before, yet the percentage has diminished from 25 to 20 per cent. The utmost extent of circulation for any given population in a district is determined by the convenience of access and the proportionate number of volumes, fiction inclusive, which it desires to borrow. If a public Library is administered upon the principle of giving fiction in preference to books of solid value, and as much as is wanted, there is no limit to the circulation which such popular Library may acquire.

This element of the due proportion of imaginative reading in a popular collection has only been approximately determined. Various experiments have been made without any absolute or fixed results. These must depend upon the intelligence and cultivation of the community supplied by the Library, and disposed to improve its opportunities, both for reading and instruction. A Library without fiction may be established and find readers in sufficient numbers to authorize its establishment, but a Library to meet the wants of the largest number of readers and tax-payers cannot exclude from its collection the books which they require, except that a supervision should be exercised over the moral element upon which works of imagination exercise so important an influence. It must always be remembered that a community which spends its otherwise unoccupied time in reading books, without immoral tendency, is getting an education which diminishes crime and increases the general capacity of obtaining an advanced educational result from such books as attract its perusal.

The reading-rooms of such libraries as were opened to the public, including Sundays, through the year, received visitors on 360 days, during which 339,514 readers made use of 424,664 periodicals,— an increase of 22,206 readers and of 24,212 periodicals. The employment on Sundays of the branch reading-rooms, as intimated in the last report of the Trustees, has become so limited that a portion of them has been discontinued.

The contributions to the collection from individual generosity since the last acknowledgment of the Trustees, show 1,125 benefactors, who have given an aggregate of 3,562 volumes, and 11,071 pamphlets. Besides this, there has been placed at the service of the institution by a previous benefactor, J. Ingersoll Bowditch, Esq., the sum of five hundred dollars, to be expended in the purchase of mathematical works,— for the purpose of adding to the Bowditch Library such publications as are needed to keep pace with the progress of that science. Our permanent funds have also been increased by the addition of the balance of $335.13, remaining in the hands of the managers of the Dorchester and Milton Circulating Library, when that collection was presented to the city,— an amount which it is hoped the citizens of Dorchester will augment to an extent which will enable the Trustees to add to the Dorchester branch such works of permanent value as the general appropriation for books on the part of the city does not permit the Trustees to purchase.

The losses of the Library in books not recovered from borrowers still show the Central Library as the principal sufferer. The Roxbury Library has no volume missing from its circulation of 146,829 volumes,— the largest circulation of a single Library without loss yet known to our experience. The total issues of the branches were 593,202, and there are missing only 10 volumes, being one for each 59,322 circulated. Owing to the more changeable population of the city proper its record is not so satisfactory, 119 volumes not having been returned from a delivery of 547,350 volumes, or one out of every 4,600,— a somewhat larger proportion of loss for the central departments than recent years have indicated.

In concluding this brief narrative of the progress of the institution during the past twenty-five years, inclusive of the report upon its operations during the past twelve months, the Trustees submit that the whole constitutes a record for which the city of Boston and their fellow-citizens may well be congratulated. Year by year its ramifications have been wider, its influence deeper, and its position

higher. Founded for the advancement of popular education, it has amply fulfilled the original expectation of becoming "at last a great and rich Library for men of science, statesmen, and scholars." To-day it contains the largest number of volumes of any Library on the western continent, and is not surpassed by the best in the variety and value of its contents. What its future may be none can predict. "It may well be left," where it was originally left, "to the judicious liberality of the City Government and the public spirit of the community."

WM. W. GREENOUGH,
GEORGE B. CHASE,
JOHN T. CLARK,
RICHARD FROTHINGHAM,
SAMUEL A. GREEN,
OSBORNE HOWES, JR.,
WESTON LEWIS,
RICHARD POPE,
BENJAMIN F. THOMAS.

PUBLIC LIBRARY, 30th June, 1877.

[B.]

REPORT OF THE EXAMINING COMMITTEE,

CONSISTING OF

Rev. James Freeman Clarke, James R. Chadwick, M. D., John C. Gray, Jr., Esq., Gilbert Attwood, Esq., Mrs. Kate Gannett Wells, with Mr. Geo. B. Chase, of the Trustees, as Chairman.

In behalf of the Examining Committee, appointed under the sixth section of the city ordinance to examine the Library, the undersigned has the honor to present the following report to the Trustees: —

The committee would express its entire accord with the committee of last year in disapproving of the wooden gallery in the rear of Bates Hall, owing to the danger from fire to which the Library is thereby exposed. The introduction of heavy iron screens for lowering in all the passages connecting this gallery with the main building would be advisable, as affording a certain amount of protection against the flames should they chance to attack this wooden structure.

The need of an additional wing for the accommodation of the readers who already find insufficient space in Bates Hall and the lower reading-room; for the rearrangement, increase and use of the Ticknor and Bowditch Libraries, and of the newspaper files now exposed to injury from the dampness of the basement; for enlargement of the bindery; and for toilet-rooms, which decency and health require should be provided for the staff of the Library,—has been fully set forth by the Superintendent in his report and has our unanimous endorsement. It is a matter of regret that the City Architect could not find it compatible with his other engagements to submit to the committee, in response to repeated requests, a rough draft of his plans for a wing upon the east side of the Library. The purchase of the Hotel Pelham, which it is understood can now be effected on favorable terms, would, in our opinion, be a wise provision to meet the speedy call for additional wings which the present rapid development of the Library justifies us in predicting.

The committee greets with satisfaction and approval the inauguration of a more adequate system of selecting and

purchasing books for the Library, in the appointment of three experts to advise as to the expenditure of the special funds for the enlargement of the Bowditch Library. We are satisfied that this plan can be advantageously extended to other departments of the Library. While the regular staff is fully competent to judge of the wants in many domains of knowledge, yet it is evident that, in others, its members cannot be fully informed as to the scope of the volumes already upon the shelves, and more especially as to the value of new publications.

The committee cannot praise too highly the administration of the Library in all its details. The credit of this redounds to the honor of the city and its citizens, but is really due to the distinguished ability and untiring zeal of the Librarian. Mr. Winsor* has won for himself, for the Library, and for the city of Boston, the foremost place in the management of free public Libraries. His principles and methods are watched in all parts of the civilized world, and accepted as the models for imitation. His position as a skilful, energetic, and successful library administrator, if not actually the first in the world, is certainly second to none. The aggregate value of the property under his charge is more than a million dollars; the force employed numbers nearly a hundred and forty individuals. The influence which his measures exert upon the education and future welfare of the citizens is beyond computation. The character and attainments requisite in the incumbent of such a post are in no wise inferior to those sought for in the President of Harvard University or of any great institution of learning. President Eliot receives what is equivalent, it is believed, to $6,000 a year. The Mayor, Solicitor, Auditor, and Treasurer of this city receive $5,000 annually; the City Engineer, $4,500; the City Clerk and the City Collector, $4,000. In marked contrast to these salaries stands that of the Superintendent of the Public Library, this year reduced from $3,600 to $3,300, which does not exceed that of a well-paid assistant or chief clerk. This salary does not correspond to the duties and responsibilities of the position, to the remarkable ability and high professional standing of the present incumbent, or to the salaries assigned to other officers of similar grade by the City of Boston. The committee is unanimously of opinion that this salary is discreditably small, and should be made equal to those given to the heads of the other higher departments of the public service. It should further be said that no hint has been received from Mr. Winsor upon this sub-

*This report was made before Mr. Winsor received an invitation to go to Cambridge.

ject, nor is it known to him that any allusion to his position or salary has been made in this report.

In this connection the committee would be derelict of its duty to the public and to the Library did it allow the action of the City Council, during the past winter, with reference to the Library, to pass without comment.

The original ordinance of the city provided that the election and salary of the Superintendent should be determined by the City Council, whereas the choice of all the other officers and the determination of their salaries should be left with the Trustees. At one time an unsuccessful attempt to defeat the re-election of Mr. Jewett as Superintendent, upon political grounds, led to an amendment of the ordinance, whereby the Trustees were given authority to choose the incumbent of this office, while the salary was still to be fixed by the City Council. In exercise of the powers thus conferred upon them by the ordinance, the Trustees have always chosen all the officers, and have, until this year, determined the salaries, except that of Superintendent. During the past winter the City Council adopted an order regulating the salaries of more than thirty officers of the Library, and limiting the number of persons employed and their salaries to such proportions as should meet the approval of the Committee of the City Council on the Library.

As it had always been supposed that an ordinance took precedence of an order, it was inferred that the order above alluded to could not be legally enforced. The Trustees, however, as has been elicited by the inquiries made by our committee, — having been informed by the City Auditor, that, in accordance with instructions from the City Solicitor, he should be governed in the disbursement of funds by the provisions of the order, — addressed two communications to the City Solicitor, at intervals of several weeks, asking his opinion. As two months had elapsed since the first of these communications and no reply been received, a third was addressed to the City Solicitor, at the instigation of our committee, asking for an early response; but none has yet been made.

In fixing the thirty odd salaries, the Committee on Retrenchment of the City Council — as we have learned on pursuing our inquiry — sought no information of the Trustees or Superintendent as to the direction in which reductions could be made with least injury to the Library; and consequently, through ignorance, did great injustice to individual incumbents, and great detriment to the efficient management of the Library. The committee, for reasons that were not given, confined the reductions to the Central Library. The

salaries were modified by the committee in such ignorance of thefacts that, in two instances, instead of being lowered, they were absolutely raised. In the case of a valuable officer, who had been retained in the service of the Library by an increase in his pay, when a more lucrative position had been offered him elsewhere, the committee, although informed of the fact, reduced his salary with the rest,— thereby breaking the engagement made with him in good faith by the Trustees. Other officers of the same grade and equal merit had their salaries reduced in different proportions.

By the enforcement of this order the system of the Trustees, which had been found to work for the Library's advantage, — of fixing the salaries at an even grade when the duties were first assumed, and raising them as length of service and qualification justified, — was entirely abolished.

In the bindery the salaries had been originally determined by the regular rates prevailing in the other binderies of the city for the same class of work, yet the same reductions were made by the committee as in the rest of the library, with the full cognizance of the fact.

On page 26, of City Document No. 20 (1877), are placed in juxtaposition the total sums expended annually in the payment of salaries in the Public Library at intervals of five years. These figures are published, with the sanction of the Committee on Retrenchment, in explanation and justification of the reductions recommended. The apparently rapid increase in the sum total of salaries in each successive column is found, on scrutiny, to be due, in a measure, to certain errors that have crept into the tables. For instance, the sum total of salaries in 1860–61 is put at $3,900, which includes only the salary of the Superintendent, Assistant Superintendent, and janitor; whereas, during that year, there were twenty other subordinate officers drawing salaries in the Library, of which fact no mention is made by the committee. In the last column $68,410 is cited as the sum total of salaries for 1876–77,— no reference being made to the fact that over $9,000 of this sum were paid for binders' salaries, that item having been charged to a different account in previous years. These and other similar errors were pointed out to the Committee on Retrenchment before the presentation of their report, but were not corrected. An authentic comparison of these years was submitted in print to the Trustees of the Library by the Superintendent on Feb. 13, 1877.

The above facts have been here advanced, in order to indicate the nature of the danger to which the Library is liable to be exposed by the exigencies of the public service and the

action of the City Council or its representatives. In view of such events the committee urgently recommends that the Library be placed upon an independent basis, either by an act of incorporation under the State laws, or by such measures as shall be found expedient.

An examination of the accounts of the Library by the committee shows them to be kept in a simple, intelligible manner, so that the Superintendent is able at any moment to inform himself of the state of the different Library funds and appropriations.

A new rule has been enforced in the Library during the past six months, limiting the number of days which a book can be kept, before renewal, to seven instead of fourteen as formerly. While the propriety of this measure is evident in its application to new books, which are sought by many readers, the committee entertains some doubt as to its effect upon the character of the books read by the public, and is glad to know that it is to be regarded as an experiment for another six months before being definitely adopted by the Trustees.

Before closing this report the committee desires to present some suggestions upon the

Ventilation of the Library,

based upon a special investigation, made with the co-operation of Dr. D. F. Lincoln of this city, an acknowledged expert in all matters pertaining to sanitary science.

It is not expedient or possible here to consider in detail the hygienic condition of each floor or hall, but the aim will be to indicate briefly the present status, and to suggest changes or devices that may conduce to the health and greater comfort of the staff and the public, without undue expense.

The matter of *ventilation* appears to have been wholly disregarded in the original plan of the building, the result being that in no one of the halls is any suitable provision made for removal of the air when it has become foul. The few ventilating flues conducting from the lower halls, and the ventilators inserted into sky-lights above the alcoves, in Bates Hall, are so utterly inadequate to effect the proposed ends as not to merit a moment's consideration. A step in the right direction was taken last year, at the suggestion of one of your Board, Mr. Weston Lewis, in making a single opening in the floors of both the lower hall for delivery, and the general reading-room, through which a downward draft was maintained by means of pipes connected with stoves in the basement. These undoubtedly did good work, but were

so small, in proportion to the size of the rooms and the rapid vitiation of the air, as to preclude their making a sensible change in the quality of the latter.

The late Dr. George Derby found the atmosphere of the lower hall for delivery to be, when thronged, as it often is in the winter afternoons, more foul and unwholesome than that of any other room in the State. This is not to be wondered at in view of the crowds that fill its precincts, and the lowness of its ceiling. The only openings through which a change of air can be effected in the winter are the doorways communicating with the entrance to the building and with the adjoining rooms, and the hemispherical aperture in the ceiling corresponding to one of the windows on the south side. Through the last a constant escape of heated air takes place into the low store-rooms above, and thence up the circular stairway into Bates Hall, where it is disseminated to pollute that place. If the adjoining rooms contained a relatively pure air, the doors communicating with them would allow an interchange of atmospheres, which would be to the advantage of the delivery hall; but as they have their own sources of contamination and are equally devoid of ventilation, but little relief is derived from these quarters.

Three methods seem available for the ventilation of this room: (1) Through the floor, by means of ten or more shafts similar to the one recently put in at the suggestion of Mr. Lewis. (2) Through the ceiling, by means of registers connected by pipes with the ventilators now existing in the skylights of Bates Hall; the pipes could be so placed in the alcoves as not to interfere with the handling of the books. (3) The conversion of the circular stairway from the storeroom into a ventilating shaft, by encasing it in wood and glass, or sail-cloth, and by substituting a large ventilator for the sky-light above it in the main roof.

The first and second methods would necessitate a considerable outlay of money, whereas the third, which is in reality but a more perfect adaptation of the present means of ventilation, can be tested at a trifling expense, by enclosing the staircase temporarily with cotton or linen cloth, and capping it with a ventilator. This plan need not interfere with the use of the stairs, as swinging doors or curtains could be placed at each landing. Of course those entering the stairway would be subjected to a very oppressive atmosphere; yet this would only be for a few moments at a time, and would scarcely be worse than that to which others are now exposed continuously in the Delivery Room.

This scheme would prevent the constant pollution of the

atmosphere in Bates Hall by the foul air from the Delivery Room, and thus fulfil one of the first requirements of any proper system of ventilation.

The entrance of the air into this extemporized ventilating shaft would be facilitated, and at the same time the cubic space of the Delivery Hall be greatly augmented, by cutting away the iron floors of the Store-Room between the iron pillars, so that the Delivery Hall would become as high as the other halls in the first story, and the Store-Room be converted into a gallery. The staircase should then be cut off on the level of the floor of Bates Hall; the segment removed being now very rarely used, and not at all needed for the service of the Library.

No ventilation of a room will be efficient through the operation of escape-pipes alone, unless corresponding provision be made for the introduction of fresh air. This is best effected by openings in the floors communicating, both directly with the outer air, and indirectly by way of a chamber containing steam radiators; by suitable valves the proportions of hot and cold air thus admitted can be regulated, while the volume remains the same. Such a system of pipes should be introduced into each hall in the Library building.

The *General Reading-Room*, which is commonly very close and oppressive, and the *Special Reading-Room*, can be ventilated through the floors as in one of the plans proposed for the Delivery Room, or, *more economically*, through openings in the ceiling connected by pipes with the ventilators in the sky-lights of Bates Hall. The draft in these pipes may be made more rapid at night by having them terminate in hoods encircling the posts above the gas-jets. A still better plan would be to have them terminate in the ceiling over clusters of jets, — called sunlight, — which supply the best illumination for the readers in the hall, while they would produce the most rapid currents in the flues.

The *Lower Hall Book-Room* seems to require no special system of ventilation, owing to its size and the small number of persons occupied in it. Our only concern need be for those three or four individuals whose tables are in the gallery. It is evident that the temperature of a room which will be comfortable to those on the floors must be too hot for those within a few feet of the ceiling. Such is found to be the case in this room, but the difficulty can undoubtedly be overcome by moving the desks to the windows at either end of the room, and shutting off these portions of the gallery from the body of the room by glass partitions. This change will,

moreover, give the employés much more daylight for their work than they now have.

In *Bates Hall* the great height would preclude ventilation through the ceiling, owing to the impossibility of maintaining the temperature on the floor at a comfortable warmth, were much of the heated air at the top of the hall to be allowed egress. It will therefore be advisable to carry ventilating shafts from a great many ventilators in the sky-lights nearly to the floor, where they can open in the shape of hoods above the gas-jets. Special gas-jets kept constantly burning in all such pipes would greatly accelerate the currents. In the gallery at the south side of the hall, where many of the staff are regularly occupied, much complaint is justly made of the heat and foulness of the air. This can be remedied, as in the Lower Book-Room, by shutting it off from the hall by means of glass windows, without in any way marring the architectural appearance of the hall.

The Superintendent's room, the Patent Room, and others, are heated by radiators, there being no provision whatsoever for a change of the air. Great improvement could be made in the atmosphere of these small rooms by boxing up these radiators, and admitting fresh air into the chambers thus made, by pipes connecting with patent ventilators placed in the lower part of the windows in front of which the radiators now stand. By this simple device air could be admitted through the windows even in the coldest winter weather.

Green shades are much needed in the Patent Room to keep out the excessive glare and heat during the summer months.

Awnings for the same purpose should be provided for the windows to the gallery on the south side of Bates Hall.

It should be stated, in conclusion, that the suggestions as to ventilation are of course intended to meet the wants of the Library during the winter months, when the windows cannot be opened without creating dangerous drafts; and, further, that the above plans are only mentioned to indicate that much improvement may be effected without a great expenditure of money. We would urge upon your Board the expediency of appointing a committee of experts to consider the hygienic condition of the Central Library building and of all the branches, and to present schemes for their improvement.

The committee begs leave to close the report by expressing its obligations to the Superintendent and other officials of the Library for the uniform courtesy with which its members have been received.

For the Committee,

JAMES R. CHADWICK.

[C.]

REPORT OF THE SUPERINTENDENT.

To the Trustees: —

The present report is the tenth of my administration as Superintendent, and the twenty-fifth from the foundation of the Library. The juncture seems a fitting one for an extended examination of the history of our institution, and such a one I intend to present to you at a later day. In this place I must confine myself to a synopsis of the progress of the Library during the last decade.

The death of Professor Jewett, my predecessor, left the Library in a flourishing condition. The foundations had long been laid, and his own exertions had done much to strengthen them. On the occupation of the present building in Boylston street, the executive charge of the Library devolved upon him, and for ten years, by his administrative faculties and bibliographical attainments, he proved himself worthy of an institution whose future seemed certain of eminence. During this period, the Library doubled both in its extent and its usefulness, and he left it with over one hundred and forty thousand volumes on its shelves, and with a record of annual issues of about two hundred thousand volumes. The institution had firmly established itself as a popular educational factor, and in this respect was without a peer in the country. The Boston Athenæum had long been, with its excellent collection, the main dependence for reference and more scholarly uses to the inhabitants of Boston; but the Boston Public Library in this respect also was now about to eclipse its neighbor, and in the collection of Bates Hall it offered a Library for research quite the equivalent of both those of the Boston Athenæum and of Harvard College, and surpassed only among the Libraries of the country in this respect by the Astor Library in New York, and by that of Congress, which, by the then recent purchase of the collection of Peter Force and by the engulfing of that of the Smithsonian Institution, had taken the first place.

Such was the position of this Library ten years ago, when the sudden loss of its Superintendent, and the ill-health of its next succeeding officer, the late Professor Jillson, caused

a vacancy, which the Trustees chose to fill by the appointment of one of their own number. I found myself in a position congenial to my tastes, conscious both of the excellent condition in which the institution was placed for a career of development, and ambitious of enlarging its scope, in accordance with the principles which wise men had made its fundamental laws. It was a work worthy of any one's endeavors. With the countenance and encouragement of a Board of Trustees in sympathy with the project and largely instrumental in its success, and with a City Council responsive to demands for increased accommodations and resources, the results have been reached, which you will allow me briefly to set forth.

In 1867 our sphere of work widened from what is now called the Central Library; but in the report of the Examining Committee for that year attention was drawn to the success which had attended the branch system with the English Libraries, and as warranting its trial with us. The enabling acts of the Legislature of Massachusetts had early recognized the necessity, and had included Branches in the permission which they had afforded to cities and towns to establish Public Libraries; but this Library had been founded eighteen years before its first Branch was opened at East Boston, in 1870. It was ascertained at that time that the chance of a resident of that island using the Library in Boylston street was not a third of that of a resident of the city proper, — so important is the nearness of books to the homes of the people in developing a use of them. In 1872 the second Branch was opened, at South Boston; the third, in 1873, at Roxbury, under the favorable auspices attending a junction with the resources of the Fellowes Athenæum, whose income opportunely became then for the first time available. With 1874, the acts of annexation, by which the City of Charlestown and the Town of Brighton became a part of our municipal territory, provided that their respective Libraries should become branches of ours. Early in 1875 our youngest dependency was opened in Dorchester. This made the number of our Branches six in all, outlying like a cordon of posts, at distances from head-quarters varying from a mile and a quarter to four miles and a half.

A further development was begun in 1875 by the opening of a Delivery of the Dorchester Branch at the Lower Mills; and again, in 1876, by a similar outgrowth of the Roxbury Branch at Jamaica Plain. These Deliveries are maintained at comparatively small expense, and have proved so far capable each of adding ten or twelve thousand issues annually to our circulation. Brighton, our least-used Branch,

scores about thirty thousand issues a year, and it may be well questioned if the villages dependent upon the Lower Mills Delivery, with the same facilities, would not patronize a Branch to an equal extent with Brighton. I am confident that at Jamaica Plain the circulation, by converting its Delivery to a Branch, could be carried far ahead, and that it would surpass even that of Dorchester, which now records about seventy thousand issues for the year; and there are regions still beyond, at Roslindale and West Roxbury, which, as Deliveries of a Branch at Jamaica Plain, would largely enhance the usefulness of the Library.

We have had abundant proof in our experience that the Branches, with the territorial extent which has been left between them, have not at all diminished the usefulness either of one another or of the Central Library. Some apprehension was felt, at the institution of the system, that Boston was hazarding its chances of making the Library in Boylston street an important one for the country, and even for the world, in thus dissipating, as it was feared, the resources of the city among lesser projects, which would detract from the interest felt in the parent institution. The result has been just the reverse, as will appear from the following table: —

ANNUAL ISSUES.

DEPARTMENTS.	1868.	1869.	1870. (9 mos.)	1871.	1872.	1873.	1874.	1875.	1876.	1877.
Central Library { Bates Hall	33,874	42,905	47,597	65,205	50,251	59,264	72,313	80,737	114,329	141,618
Central Library { Lower Hall	141,853	175,772	163,366	231,110	254,246	238,057	253,097	272,834	348,842	405,732
East Boston Branch	...	...	...	26,130	75,846	68,212	81,091	85,548	90,987	102,627
South Boston Branch	...	...	...	...	...	102,322	108,566	112,525	115,530	135,179
Roxbury Branch	...	...	...	...	...	...	67,342	89,539	101,297	146,829
Charlestown Branch	...	...	...	...	...	...	33,391	79,375	85,815	106,816
Brighton Branch	...	...	...	...	...	...	9,642	21,842	24,805	29,792
Dorchester Branch	...	...	...	...	...	...	...	16,017	66,016	71,979
Totals	175,727	218,677	210,963	322,445	380,343	467,855	625,442	758,417	947,621	1,140,572

The check in the circulation in 1872–3 in the Central Library was owing to changes going on in the internal arrangements of the building. It should also be remembered that the first years of the Roxbury, Charlestown, Brighton and Dorchester Branches were not full years.

The table shows that, while the circulation of the entire Library has increased nearly seven times, the present aggregate is by no means wholly owing to the additional work of the Branches; since the use of the popular collection in the Lower Hall has nearly trebled, and that of the higher department of the Bates Hall has quadrupled. The Bates Hall delivers as many books now as the Lower Hall did ten years ago. Our experience has been that also of the principal English Libraries. Dr. Crestadoro writes to me from Manchester, that the successive establishment of the Branches of their Library has in no wise interrupted the constant appreciation in use of the pre-existing departments.

A system then so well established, and of so good record, must linger but little in further development. We need but a return of prosperity in the business affairs of the community for the Library to take a new departure with an acceleration all the greater for the present reservation of energy. A proposition now before the City Government for accepting the books of the Mercantile Library Association, using a part of them as the nucleus of a Branch at the South End, if agreed to, will give us a dependency, which must prove one of our most important.* The time cannot be far distant when Jamaica Plain will demand a Branch instead of a Delivery.† I think also one will be necessary somewhere between Beacon and Copp's Hills. An increase in our Deliveries I think inevitable.

As already indicated, a Branch at Jamaica Plain will lead to Deliveries at Roslindale and West Roxbury. The importance of the Dorchester Branchwill be much increased by such natural dependencies at Neponset, Mount Bowdoin, Mattapan, and in the region lying between the Dorchester and Ashmont stations on the railroads. The Five Corners and Washington Village will perhaps more easily depend upon the South Boston Branch, if indeed the region they cover must not in time be advanced to the rank of a Branch district. South Boston Point and Bay View will also claim in time their partial if not entire independence of the same Branch. The remoter regions of Charlestown and East Boston will demand such accommodation. The Roxbury Branch must in time throw out

* This has since been determined upon.
† This has also since been determined upon.

Deliveries both in the direction of Upham's Corner to the south-east, and of Longwood on the north-west.

The possibilities of further annexations to the city are beyond our prescience. The Public Libraries of Brookline, Cambridge, Somerville, and Chelsea are at least well situated to add to the symmetry of our network, as delineated on the map.

Within the past year a sort of sub-delivery has been established at Deer Island, for the benefit of the City Institutions situated there, books being sent in boxes from the Central Library once a month, two or three hundred at a time. At the request of the Fire Commissioners, a similar service has been given to thirteen of the engine-houses in the City Proper, and to the fire-boat, for the benefit of the firemen; and it is probable that the Protective Department will come within the same rules.* Under a guaranty from the authorities of the Navy Yard, a like privilege has been granted to the reading-room within the walls of the yard, for the advantage of the enlisted men on the station; but the arrangement has not yet been put in force.

Such, then, is the extent of the circulating service of the institution compared with what it was ten years ago. The increase is great; but I think we find the condition of matters to-day as favorable for an equal increase during the next decade, and perhaps for a still greater one. I look for greater favor being accorded to the Branch system by devices for increasing the promptitude of the business by means of telegraphic wires for the transmission of messages, and not unlikely with telephonic attachments.

This enlargement of circulation from 200,000 to 1,200,000, or sixfold, has been in part brought about by other agencies than by a multiplication of points of delivery. It could have been increased still more largely had we consented to augment the accessions of fiction, and to duplicate to a great extent the copies of the last new book. I have heard my predecessor maintain that there was scarce a limit to the extent of circulation, should such a policy be persistently carried out. I am glad to say that this increase has been made without any corresponding augmentation of that class of reading; indeed, with a diminution of it; and this has been brought about through an improvement in our catalogues, which I may speak of a little later. Increased days and hours of access have also borne their share in the work. In 1869, for the first time in the experience of a large Library, it was not found necessary to close our doors for the

* It has since been done. This Department has two houses.

cleaning of the shelves and for the taking an account of stock, and since that time the days on which the Library has been closed have been confined to the legal holidays, with an occasional exception of a general gala-day. This change was made through no neglect of stock-taking; but the newly adopted method of charging books on slips, which were arranged for the year's record numerically by the shelf-number of the book delivered, rendered it possible to account for books missing from the shelves and charged to borrowers, without an absolute inspection of the volumes. Under the previous ledger system, of charging loans in accounts with borrowers, the multitude of such accounts to be searched for a record of the book to be accounted for, made the business practically impossible.

Beside this increase of days, the aggregate of hours per week within which the books are delivered has been considerably extended; and it still remains a question of serious moment whether the most important department of the Library can be held to fulfil its perfect mission, until it can be as freely visited in the evening hours as it is now in the daytime. I think considerations of increased expense have only so far stood in the way of this change. The practicability of an evening service succeeding to the work of a day force has for some years been tested in our Lower Hall, and could be as well applied to the Bates Hall, for the delivery of books and for the answering of ordinary demands. Research of a curious and recondite order is increasing rapidly among the frequenters of the upper department, and requisitions are much more frequently made than formerly upon the time of its officers and the trained assistants of the catalogue department. The two assistants in charge of the Public Card Catalogue, on the floor of the Bates Hall, assisted 1,560 readers last year, which number was increased to 3,867 for the year just closed. It would be hardly possible to duplicate such officers and assistants for the evening hours; and the hours of this service at present are burdensome enough, with the mental strain accompanying them. Indeed, I may say that the skilled workers of the Library, though their labors require a breadth of knowledge and an acumen of the critical faculties rarely brought into requisition by the teachers of the schools, are subjected to greater application daily, with far less respite from vacation. They are, moreover, recompensed with salaries, which leave many of them to eke out a support by labors that impair their energies for the morrow's work. If the tax-payers of the city demand this sacrifice, the struggle must go on, and the harness must gall while the goal is reached. There is too much ambition

to maintain the good name of the Library to allow any spirit of indifference to abate the labors imposed.

I think something, too, of the greater use made of the books is due to the changes which have been made in the methods of delivery, by which the average delay in finding books has been materially shortened. In the Lower Hall this has been partly accomplished by bringing the books, which were in galleries, all upon the main floor; but I am sorry that, owing to the faulty construction of the building, the awkwardness of obtaining books from shelves beyond the reach of the hand still exists, to the great detriment of the promptness of delivery. This blunder has not been repeated in the new additions of the Central Library, nor in the Branches. Our present method of making the public do their own charging, by filling out the slips which are left as a voucher for their loan, enables us to deliver in a busy season nine or ten thousand volumes a day with much less confusion and with more expedition than fifteen hundred volumes were delivered ten years ago. In our busiest days now, in the Lower Hall, when twenty-five hundred volumes are issued a day, the delivery clerk needs but the occasional assistance of the officer in charge, to accomplish a business that it took, under the old system of ten years ago, five or six people to meet, with less than half the number of issues. I do not deem that we have by any means reached the limit of circulation which the Lower Hall ought to maintain, though we are fast approaching the extent which is possible without an enlargement of the delivery hall. Among our branches, South Boston particularly finds its issues checked by the wants of larger space for the public in waiting; and it is to be hoped that the enlargement contemplated for that Branch will not be long delayed.

In the Bates Hall the time is also not far distant when want of space for the frequenters will interfere with its usefulness, as it clearly has on some days during the past winter. Ten years ago its aggregate annual issues were something over 25,000 volumes, or a daily average of less than a hundred, at a time when the space on the floor was given wholly to public use; but the case is far different when the issues per year are approaching 150,000, and the largest daily use is between nine hundred and a thousand volumes; and when, in addition, a considerable share of the open floor has been occupied by the cases of the Card Catalogue, with its attendant keepers. Furthermore, about fourteen months ago, it became necessary to enclose a larger space for a desk of delivery as well as of receipt, where one desk answered both purposes before, and to

afford an additional counter for the consultation of reference books. The loss to the public floor has been in a measure compensated for by the new study-room in the rear of the main desk, where those requiring facilities of research and ink for writing are accommodated.

It will thus be seen that want of room is a serious obstacle to the Bates Hall doing all the work which it ought. You are aware that the City Architect and myself have been engaged upon plans for an extension of the building easterly, so to enlarge the Bates Hall in the direction of the Hotel Pelham, and to afford additional accommodation for books as well as for placing of reading tables for the use of the public. The plan also aims to provide fit storing rooms for our bound newspapers and duplicates, now disgracefully stacked in a basement, ill lighted and damp, and for an enlarged bindery; for additional book room to meet the growth of the Ticknor and Bowditch libraries, and of other parts of our collections; and for suitable convenience of a toilet nature, demanded by the physical and moral good of the present large staff of both sexes. It also contemplates that enlargement of the public waiting rooms in connection with the popular Library in the lower story, now so necessary to the proper development of the advantages which ought to spring from the use of that hall. In the Periodical Reading-Room attached to this department the want of enlarged space is equally felt. While its issues now are nearly five times what they were a decade ago, for a year or two its use has not increased as it would have done with more ample space for readers. Its increase of use the past year over the previous year has fallen somewhat short of that of the Lower Hall Library, the former showing an increase of 13 per cent.; the latter of 16 per cent.; while the Bates Hall has increased in use nearly 24 per cent. At our most flourishing Branch, Roxbury, where the accommodation is ample, the increase over last year has been nearly 45 per cent., and during the winter has been over 60 per cent., while during the summer it was almost 23 per cent. With the Lower Hall, under the enforced restrictions of space, the reverse has been the case, and the percentage of gain in use in the summer months, when the accommodation is in better proportions to the number of frequenters, was thirty, which fell to less than twelve during the winter months.

There are one or two particular points which well express the relative interest of the public in the Library, to which I will further direct your attention. The system of inducing the public to recommend books not in the Library was begun with the organization of the Library, and it was looked upon as

one of the best means of interesting the community in the Library's work. This belief was for several years trusted to in the hope that if results were not patent, they would become so in time. Every effort made to induce the public to recommend books produced little. During the decade preceding the last, one year fewer than twenty titles were handed in; and for the whole decade there was an annual average of no more than 225 titles recommended. This inertia, however, came to an end with that period, and in 1867 the number of titles derived from this source mounted to 546, from 300 for the previous year. The annual number has been rising steadily since, and it is now about 2,500 titles, or about five times what it was ten years ago.

In 1867 the patent-room was visited by less than 200 persons, and the necessary oversight of it was given by any assistant from the other departments, who was detailed as occasion required. Now, it demands the constant attendance of one assistant, and the frequenters for the year have increased to over 2,600, or thirteen times.

In 1867 the registration of applicants for the right to use the Library, which had been begun in 1859, had reached about 53,000 names, showing an average of between six and seven thousand a year; and it was at that time, though a mistake, as I think, set aside, and a new one ordered. Beside causing additional labor, the new registration put extra formalities upon a public, always impatient of interpositions of such sort, and resulted in a temporary check of the circulation. The registration then begun reached 12,000 within a year, indicating the number of cards in the hands of the public at that time. It has gone on increasing, receiving extraordinary accessions in 1874, when the existing registrations of the Libraries at Charlestown and Brighton were assumed, until at the present time the number of cards liable to be presented for books amounts to 130,000. This shows ten times as many to be watched to-day as there were in 1867; and the yearly increase of this number is now about twelve or thirteen thousand, or double what it was then.

It is not likely, of course, that this full number of cards is in use to-day. Death and removal from the city have thrown out large numbers; but comparatively few have been presented for cancellation, and accordingly nearly this full number are under surveillance. When the *dead*, as we technically call them, bear so large a proportion to the *quick*, as they must do to-day, it is manifest that for facility of manipulating, some process of elimination must go on, if the whole is not periodically discarded for a new beginning.

The process in lieu of the latter, which we now pursue, saving annoyance to the public, is to remove the record-slips from the general file to a subsidiary one, as we have evidence, through applications for new cards in place of those filled up, that the privileges of the Library are still availed of. In that way we establish a *quick* file, which answers the great bulk of demands, and which leaves but a few inquiries to be determined from the *dead* file. The *quick* file now contains four-fifths of the entire 130,000, leaving over 100,000 users in more or less active use of the Library.

One or two other items will clearly indicate the gain in the administrative work of the Library attendant upon the increase of its use. In 1867 something short of 16,000 notices were sent through the mail for books over-detained, and finable. While the circulation is now six times as large, this sort of delinquency has only increased four times, but this necessitates the sending of over 60,000 such notices a year. The Library has gained, with the rest of the community, in expedition and economy, from the use of postal cards, which now convey our notifications of all sorts. Before the government adopted the plan, the Library did, and for a year anterior to the appearance of the postal card in the mails, the Library used its own, but with the necessity, of course, of two cents postage. The gain, nevertheless, was obvious. At present its mail service of all kinds on postal cards consumes nearly 70,000 a year, — no small item in our account of of expenses.

With all the advantages of this augmentation, the most gratifying change of all is in the nature of a positive, as well as relative, reduction. In 1867 that portion of the community who were most regardless of their obligations to the Library, whether from wilfulness, or a culpable neglect bordering upon it, were increasing the losses of the Library to a degree, and with an accumulated proportion to the circulation, that boded a serious set-back to the good opinions which we were otherwise winning. One of the latest endeavors of my predecessor was to organize a system of following up delinquents, which has proved in the ten years since elapsed to have had the effect of reducing the percentage of loss in relation to the circulation, so that now the chance of a book's return is ten times as great as it was ten years ago. Not only the Library, but the community have gained, since the certainty of a delinquent being called to account has made the Library an important moral agent, and the sanctity of the mutual obligation of Library and patron has been so enforced that its rules and necessities command the respect and adherence of its patrons to a remarkable

degree. With a circulation to-day of six times the extent, the number of books which require a messenger to recover them is but comparatively few more than ten years ago, — a little over 1,800 now, to 1,450 then. And of the books finally unrecovered, one in a thousand issues then is set against one in eight or ten thousand now. It has also been demonstrated that in the more confined localities supplied by our Branches, the issues can be made to reach more than 100,000 volumes, without theloss of a single one. I do not think the community is more honest now than then, but I do maintain it to be proved that the Library has added to its natural qualifications the credit of accomplishing a moral reform in enforcing a regard for the observance of its rules.

All these enlargements of the scope of the Library work have been brought about without a corresponding increase of the material which accomplished it. The collection of books has not grown in equivalent proportions. The number of volumes has increased from 136,000 to about 312,000, or about two and a quarter times; and while the popular departments, ten years ago, constituted a little more than a third of the whole, the congeries of such departments to-day embrace not far from a quarter of the aggregate volumes.

In some respects the most important work of the Library is that bestowed upon its Catalogues. Ten years ago the system of its printed indexes had already received a full development under Mr. Jewett. In the Bates Hall the two large volumes, probably the last instalments of a general *printed* Catalogue of that department, had been issued; and the first of a series of special Catalogues was in progress, covering the antiquarian and theological collection of the Prince Library. In the Lower Hall, the last of its general Catalogues had been so long printed that an accumulation of annual supplements had already rendered consultation difficult; and a series of divisionary Finding Lists had been begun, to serve a temporary purpose, while that department was undergoing thorough revision, rendered necessary by the wear and tear of a dozen or more years. There was no systematic organization of the Catalogue force; and the current accessions passing through the hands of those working on the Catalogue amounted to between five and six thousand volumes a year, the cards of which were acumulating in but a single set, with no proper arrangements for their consultation. A selection merely were entered by main title only in an interleaved copy of the first index, which was the sole accessible guide for the public.

The Cataloguing Department to-day is organized with an

interdependence of service and methods, conducive to a regularity of work and efficiency for public use, that has become necessary with the enlarged scope of the operations. Four times as many volumes, or some twenty thousand a year, pass under its care, and among them is a much larger share of those, composed of many pamphlets, and which require an aggregation of work, often curiously disproportioned to their seeming value, as compared with books; but which, without such work, may as well have been kept altogether from the shelves. Instead of the laborious multiplication of references, rendered less irksome as well as less satisfactory by abridgment, a process not dreamed of at that time affords fac-similes of the transcriber's script, with a profusion that costs no time, with an accuracy that dispenses with revision, and with a fulness that preserves for the cross-references even more information than was given with the main entry before. A full record, both for public and official use, is kept up with a promptness that causes but a brief interval to elapse before the latest accession is known to be in the Library; and in a catalogue (so far as the public is concerned) which presents in one alphabet already the entire contents of the Bates Hall, and will, before long, embody those of the Lower Hall also. In the latter department, the temporary Finding Lists have become class-lists, which preserve their divisionary character for the convenience of new issues with less delay from time to time, while the additions are made accessible through subsidiary lists, maintained for the intervals between publication. The cataloguing for the Branches is added to the work of the Central Department, involving the printing of catalogues for each, the recording accessions between editions, both in the catalogue cases of the separate Branches, and in the consolidated record kept for all in the Central Department. At present, besides the work on the ordinary accessions, it devolves upon this force to carry through the press the Catalogue of the Spanish collection, bequeathed by Mr. Ticknor, which fell to the special care of the late head of this department, Mr. Wheeler, in the first instance, and now falls upon his successor, Mr. Whitney. The next of our special Catalogues following the Ticknor will be that of the Barton Library, the preparation of which is at present in the hands of the junior head of the department, Mr. Hubbard.

In 1873 the Library made an innovation in the bibliographical matter which was made an adjunct of its popular Catalogues. The new departure was a natural one, and followed as a matter of course in the development of the

influence which it was the aim of the fathers of the Library to bestow upon the public. Mr. Everett, its first president, enunciated a sentiment that has never been lost sight of, when he claimed that its mission was to supplement the schools; and a happy embodiment of the idea has found shape of late in the phrase of "The People's College." With the growth of any collection the ease of consultation naturally gives way to an indecision in the face of accumulated titles on every subject, and without some guide to a choice of books discouragement is likely to ensue from any haphazard selection out of many, for any particular purpose. A consideration of these difficulties ripened the plan. As preliminary the thought occurred of alluring the pastime reader, of whom all Libraries, in any degree popular, have a large following, by easy steps, to become a reader of better purpose. I am too much a believer in the general straightforwardness of ingrafted impulses ever violently to counteract them. I believe men can be led rather than pushed. The implanting in mankind of the story-telling faculty, and the enjoyment of it in others, was not an idle creation; and the imagination has done too much for the amelioration of mankind not to deserve our acceptance of it, as a handmaid of virtue and a promoter of intellectual advancement. This assistance was accordingly invoked in a list of historical fiction, which was prepared in chronological grouping under countries, as calculated to instigate a study by comparison, and lead the mind to history and biography by the inciting of the inquisitive faculties. I have reason to believe that the idea was not a futile one, from the interest manifested in the movement, and the avidity with which more than one edition of it was taken up. This was but a trial. The next step was the more serious one of endeavoring to direct the ductile perceptions of the less learned among readers. The effort was not to propound positively any course of reading, for there is danger always in dogmatism, however right its foundation may be. The notes which were appended to the subject-references in the History, Biography, and Travel Catalogue of the Lower Hall, in 1873, served to render the ordinary reader more able to choose to his liking when an undistinguishable mass of equivalent titles perplexed him. That Catalogue was a year in passing through the press, a term lengthened by the destruction of part of the work on it in the great fire of November, 1872; and when it was published in August, 1873, I was able to record for the next year, month by month, a remarkable increase of the use of books from the Lower Hall, in history, biography, and travel, amounting in some months to two hundred per cent. At the

end of the year we of course had to gain upon the work of its influence twelve months before, and the ratio of gain fell at once, though it still remained to give some testimony of its continued helpfulness. The files of the Library show the opinions upon these results entertained by many gentlemen interested in projects of popular education. A veteran in this sphere, Mr. George B. Emerson, said, "I have never seen anything so excellent; and hereafter no large Catalogue will be considered complete without something similar appended to it." From Europe like expressions of approval came. "I have shown it to some of the profession here," wrote one of the chief British librarians, "and they are as much astonished at the idea as at the execution of it. I do not think there will be many imitators. The labor of such a work must be enormous, and certainly beyond our resources and methods."

The expectation which was expressed by Mr. Emerson was soon realized in the adoption of many of its notes in the Catalogues of some of the smaller libraries, and in 1875, the Public Library of the town of Quincy fully committed itself to the scheme, in the publication of an excellent Catalogue, which had the editorial supervision of Mr. Charles Francis Adams, Jr., the President of its Trustees. Somewhat similar work, particularly embodying references to the sources of study in periodical literature, which had been made a part of the scheme, appeared in the careful Catalogue of the Mercantile Library of Brooklyn; but the whole effort of its librarian, Mr. S. B. Noyes, cannot be appreciated until his work is completed. Similar notes, simplified to meet the wants of a smaller constituency, and improved in many respects, were repeated in a new edition of the Roxbury Branch Catalogue, issued last year. A set of references in elucidation of English history, printed in large type on broadside sheets, with spaces for the filling in of the shelf numbers, was perfected, with the numbers of each department inserted, and posted, with good effect, in the respective halls. The edition printed was small, and the demand for them from other places could not be met; but for the testing of its value in other communities copies were sent to various Libraries in this country and in England, and I have since observed, in their reports, several references to their value.

The latest attempt of a similar kind is the recently printed Fiction List of the Lower Hall. The system of class lists has its advantages, in enabling the Library to supply new editions of those sections most in demand, without involving a reprint of others, as a general Catalogue would require.

An objection is often made to a separate Fiction List, that the searcher loses the chance of being attracted by other and perhaps more profitable books. It is certainly not without force. In the preparation of this new edition, this objection was met by the embodiment of the "Chronological Index to Historical Fiction," already mentioned, and by interpolating sections of "historical references" for pointing out the sources of the plots and delineations, and for marking the methods of parallel reading. It has been too recently issued to be able to draw any deductions as to its effect on the character of our issues; and the commingling of classes in it may render any statistical deductions difficult or impossible.

Considerable labor of a like kind of bibliographical assistance will be found to have been bestowed upon the Ticknor Catalogue, a large portion of which is due to the care of Mr. Whitney, the head of the Catalogue Department. It is a part of the plan of the Barton Catalogue, now in progress, to include much elucidatory matter, and, as far as the original issues of Shakespeare are concerned, notes of a tentative nature have already been submitted to Shakespearian scholars, through the medium of the Superintendent's Monthly Reports, and are still in progress in the same place.

In 1867 the Library issued its first Bulletin of new books, a meagre affair compared with its forty-page record of to-day. Every quarter, since the issue of the Catalogue of 1873, this Bulletin has been made the vehicle of communications, intended to convey to readers some comprehension of the position which important new books have taken in the literature of their subjects. Upon various matters of present interest more extensive research has been bestowed in various bibliographical essays. Subjects like art, in which interest has of late years been prominent, have thus been treated. A growing and studious class interested in philosophical studies have been thought of in another series of papers. In this way, also, the interest in the centennial period has induced a series of reviews of the literature appertaining to the events of a century ago, which have been carried along year by year with the recurrence of the anniversary, and will be continued till the period has passed. In order to make them component parts of a more comprehensive rendering of the historical study of the country from the earliest discovery, a series of notes has also been begun, which will in due time be brought down to the opening of the struggle for independence. If continued ultimately beyond the revolutionary war, into the present century, we shall have the material ready formed,

subject of course to revision, for issuing, in the end, such a synoptical summary of the literature of our history as does not elsewhere exist, and which will be such a contribution to its study, for the benefit of the more thoughtful of our patrons, as seems worthy our endeavors.

The plan as thus developed, I am sorry to say, has given but comparatively little attention to the scientific side of knowledge; but I trust that the conditions of the staff will in the future be more favorable for a due presentation of this element.

Up to 1868 the Library had done but little in proportion to its destined importance in the gathering of pamphlet publications. The energies of the government had properly been devoted to the accumulation of the more substantial evidences of knowledge, somewhat arbitrarily called books, as distinguished from tracts or pamphlets. A great Library, it is conceded, cannot wisely neglect the preservation of all sorts of ephemera, and the destined value of the meanest printed production can never be anticipated. But such accumulations come with time and the opportunity; and in a Library confessedly governed for the greatest good of the greatest number, that time will come later in its development, and these opportunities will be sought when its first objects are assured. Previous to 1868 perhaps 50,000 pamphlets had been secured, or an average of about 3,000 a year. The chief accessions in masses had come with the Parker Library, and with the divisions of the pamphlet collection of the late Edward Everett, when William Everett, Esq., gave a due share to the institution, upon whose career and good name his father had exercised so great an influence. Within the last nine years the claims of pamphlets for preservation have been fully recognized; and our efforts have been unremitting to gather them and combine them with our collection, first by assortment, then by binding and cataloguing, till we have acquired a collection which can hardly, in this country, be surpassed for serviceableness. In this nine years we have added an average of over 16,000 a year, or an aggregate of 150,000, which represents probably nearly as much work, in care and cataloguing, as the bound books shelved in the same interval.

The annual increase of the Library up to the establishment of the first Branch, in 1870, averaged, if the exceptional increase from the Bates donation and the Parker Library be thrown out, about 6,500 volumes a year. Since that period it has never been less than double that number; and one year, 1873–74, by the purchase of the Barton Library, and through the accession of the Libraries at

Charlestown and Brighton, it ran up to over 50,000 volumes. The present year it is over 20,000 volumes. But the gross increase of books has had to be diminished for a net result of permanent addition, by the number of lost and of worn-out books, which, from accumulating wear and tear, is naturally increasing year by year. Ten years ago this loss was from 200 to 400 a year; now it is ten times as much.

It has always been the custom of the Library to bind all books purchased in Europe before their shipment for America. In 1867 almost all of the binding and repairing done on the books here was carried on in outside binderies, under contracts for the work. The time of a single workman was partly given to repairs within the building; now fourteen hands are employed in a bindery in the basement, and 10,000 to 15,000 volumes are bound a year. We have occasionally now to employ other binderies; and it would be profitable to the Library to enlarge our own bindery, as we hope to do whenever another extension is added to our building. The experiment of doing our own binding is a satisfactory one. The gain is not so much in diminished cost per volume, though that may be reckoned at 25 per cent., as in convenience, absence from risk on valuable books, thoroughness of work, and genuineness of material. I have never found that specifications, however precise, could ensure against poor stock, where it could be concealed, or insufficiency of work, where the outside show could be made to have a good appearance. There is always difficulty in recruiting a bindery which gives a large part of its attention to "old work," as it is called, with hands that have been apprenticed to all the processes of the art in an age where division of labor is carried into all mechanical operations; and I have found that such workmen are more easily procured from the smaller binderies of the lesser towns than from the establishments of the city.

It has always been a difficulty with the boys whom we employ as pages for the bringing of books, that their deficiencies of education unfit them for advancement; and it has always become a question of submitting to their spiritless performance of duty, when they have outgrown their work, or of discharging them upon the world to begin anew in some more profitable line of employment. During the past year one such page has been transferred to the bindery, as an apprentice, and if the experiment succeeds we shall not do amiss in providing for an increase of our force in the bindery from recruits of our own training.

The decade has also seen some important changes in the building of the Central Library, chiefly in increase of

capacity, and in enlarging the official and working quarters, which were never even decently provided for in the original plan. The building can never become creditable, if adaptation to the purpose for which it was intended be considered the criterion of such approbation. Its defects are radical, and grew partly out of the inexperience of those, or rather a *majority* of the commission, superintending its erection, the records of that body showing a vote of four to three on all essential points concerned in arranging the plans, which induced an inability to comprehend the extent of work needful to be done in a rapidly growing Library, and partly from a sacrifice of fitness to a desire for ostentation. What has been done by alterations has, as far as possible, conduced to improve the building for its uses. In the Lower Hall the galleries have been converted into much-needed apartments for working and storing purposes; and the books transferred to cases on the main floor have been brought much nearer into connection with the points of delivery. In the Bates Hall the futile serrature of the lateral walls has been removed, and the alcoves, squared and subdivided, have been increased in capacity by nearly double the shelf-room, and have been lighted where they were before dark, by windows pierced in the walls. A large extension has been joined to the south-west angle of the building, affording enlarged accommodations for the bindery, and for some special collections, together with a capacious patent-room, and much-needed official quarters, catalogue-rooms and work-rooms.

The last extension is that of a two-story gallery, external to the rear of the building, which gives a room for students below, and an apartment for the work of the ordering and receiving of books above. It was calculated that the building would contain, as originally constructed, 240,000 volumes, 200,000 of which could be shelved in the Bates Hall. It is safe to say that as at present arranged its capacity is more than twice that, or about half a million volumes. It will be easily understood, however, that the limit of convenient storage for a classified library will be reached long before its full measure of capacity is filled.

From the statements which I have made it will appear that in most respects the work of the Library has apparently increased from five to ten fold. The work of detail naturally accruing to all processes which require handling of records of one kind or another is much larger, however, on each item, by reason of the larger masses to manipulate in a Library of 312,000 than in one of 136,000 volumes. Consequently the apparent increase of work, as shown by

statistics of results, is not adequate to represent the positive enlargement of labor. Nevertheless, it can be shown that the expenses of the Library to-day are not one-half as much, relatively, as in 1867. At that time our expenditure was $52,658 for the year, while for the past year we had to expend the city appropriation of $111,500, with $6,300 income from our trust funds, making a total of $117,800, or not greatly in excess of twice the amount in 1867. If the annual expenditure be divided by the amount of circulation, it will show that the measure of the Library's usefulness, as indicated by such reckoning of the cost of issue per volume, has been reduced from twenty-five cents in 1867 to less than ten cents in 1877. I made an estimate of the cost for issuing a single volume in the Lower Hall and in all our Branches for the month of February last, reckoning from a division of salaries only, and I found it to range pretty evenly all around at about two cents. Of course the including of other expenses would somewhat increase the average; but it is apparent that the Library is delivering books quite as cheaply to its frequenters, at the expense of the city, as the private Circulating Libraries do, which require a fee of two cents *a day* for each book loaned, while the Library and its Catalogue offers scope for the advancement of the public education with which the Circulating Library affords no comparison. The returns to the City Treasury from fines and the sales of Catalogues is indeed small, but it has increased from $500 in 1867 to near $3,500 in 1877.

The year which has now closed has been probably the most important one yet passed for the Library interests of the entire country. The centennial fervor has extended its animation to librarians, who carried through successfully a convention of their number in Philadelphia, in October last. The desirability of such a gathering has been felt for some years, and when the only previous convention of the kind, presided over by my predecessor, in New York, above twenty years ago, and previous to his connection with this Library, adjourned, it was with the expectation of other meetings to follow. In the interval which elapsed, however, almost a new generation of librarians had grown up, and the Free Library system, then only in its infancy, has developed the most important Libraries of the country. The profession and all interested — and the public's interest is not too remote for consideration — owe it to the energy and hard work of Mr. Melvil Dewey, late librarian of Amherst College, that the movement was made, and carried so happily through. It gave three days' pleasant and profitable inter-

course to over a hundred delegates, and has done much to make known the importance of the profession. Out of it has grown a National Association of Librarians, and of others interested in the work of Libraries, which has taken up the task of diminishing the cost of maintenance of Libraries, by inaugurating methods of co-operation, which it is hoped will secure in the department upon which money is too grudgingly bestowed, that of the catalogue, not only a diminished expense, but also uniformity in good methods, now so much desired. Measures are already in train for a new edition of Poole's Index to Periodical Literature, under a combination of labor, planned for some of the principal libraries. Other work of a similar nature will in due time follow.

Whatever may have been the satisfaction to the members of this conference during the season of it, the procession of events already following upon it is likely to prove of much more importance. It has made known much to librarians in this country, by which their labors are lightened or rendered more effective. In Europe it has helped to make known the work which we are accomplishing here in a way so different from their own, and it has instigated movements for similar gatherings in England and in Germany. In Great Britain the project bids fair to succeed; but in Germany the Libraries are largely under the charge of officers who divide the interest in their work with other duties, much to the loss of an effective emulation. In France there is more sympathy, and various recognitions of the advantages of our Free Library system have been made of late in their public press, in which this Library has more than once been pointed out as its exemplar. The destinies of Europe for the next decade may lucklessly be left to the arbitrament of war, but the season of the coming Exposition at Paris is likely, it is thought, to bring with it an international convention of librarians. It is somewhat significant that in a recent official document, laid before the Municipal Council of Paris, while a review is made of the budget for the ensuing year, the question is raised of the propriety of that city's establishing a great Public Library for popular use, and the system of our own is commented upon as the fitting one. I have been called upon for more details regarding it than our usual printed reports show, and a summary of such as I have given is now appearing serially in the *Journal Officiel*, under the supervision of Mons. Guillaume Depping, Librarian of the Bibliothéque Ste. Geneviève.

Growing out of the interest engendered with the Philadelphia conference, a new journal, devoted to the economy of

libraries, has been set on foot, again largely through the efforts of Mr. Dewey, who secured the co-operation of the principal librarians of the country, and found in Mr. Leypoldt a publisher in sympathy with the cause. In it have been printed the proceedings of the Philadelphia convention; and month by month its readers are favored with matters and records of events that closely touch their professional interests.

Two or three years ago the Bureau of Education at Washington determined that their contribution to the records of the national anniversary should be an exposition of the Library development of the country. General Eaton confided the immediate direction of this work to two gentlemen; also sought the assistance of the chief librarians of the States; and the result of all their joint labors took shape in a ponderous volume, which must pass for a bibliothecal cyclopædia, if the most varied and extensive gathering of knowledge and experience in Library economy ever made entitles it to that designation.

I have made mention in a former report of contributing a set of our catalogues, with scrap-books of our administration blanks, to the exposition at Vienna. The City of Boston receiving for its varied exhibition the highest award, we were denied the same, only under the rule which prevented the recognition of a department, when the city had been honored as a whole. For the exhibition of 1876 we entrusted a similar array of volumes, set forth in the handiwork of our own bindery, to the Board of Education of the State of Massachusetts, to become part of their exhibition. What we sent gave us a prominence that insured an award "for the extent and value of the work as shown by the reports, and especially for the great usefulness of the Catalogues, containing, as they do, bibliographical information, not only worthy the attention of scholars, but of the greatest use to the whole body of readers." The Honorable Leverett Saltonstall, the Massachusetts Commissioner to the exhibition, said in his final Report to the Governor and Council: "The exhibits of the free Libraries of the State were especially good, and attracted much attention. That in Boston, the largest in the country, with its 300,000 volumes, and lending more than a million a year, at a loss of only $\frac{1}{100}$ of one per cent., was represented by seventeen volumes, giving its history, catalogues, and an account of its administration." We shall endeavor to maintain our position at the Paris Exposition.

It remains to chronicle a few of the indicative manifesta-

tions in our experiences the past year; though I must refer you as heretofore to the records of the Appendix for the fullest particulars. At the date of the last report the new Card-Catalogue Room, with the students' room beneath, was in process of erection. Its completion and subsequent use have greatly facilitated an important department of the work, and with the crowded state of the Bates Hall, from the gathering of the ordinary takers of books, the lower apartment has afforded a much-needed room for the use of students, who require space and quiet for their studies. The shelving in the alcoves is hardly adapted to large volumes, particularly if expensive ones; and the cabinets which have contained such additions are approaching repletion. It will accordingly prove desirable, I think, to prepare the anteroom of this office, which was formerly the room of the Superintendent, for such accumulations, to be kept in locked cases. For protection against the danger of falling from the ladders in the galleries of the Bates Hall, iron bars have been put across the opening of the alcoves; and to equip the service with prompter aid in case of fire, a telegraphic wire, tested daily, now connects the Library with the nearest engine-house, and additional extinguishers have been placed about the building. The floor of the Bates Hall has been still further encroached upon by cases for the Card Catalogue, and it is only a question of time when its space must be entirely given up to such incumbrances, and a reading hall be found adjacent in a new extension.

The ventilation of the Lower Hall has always been excessively bad. Indeed, at times, according to the experiments of the late Dr. Derby, Secretary of the State Board of Health, the worst air prevailed there that he could find in the State. It is hoped, however, that an improvement has been effected by pipes, arranged to conduct the foul air from the floor into the flues, where a current is induced by hot air. The arrangement was suggested by Mr. Lewis, of the Board. The closed windows of another winter will test more thoroughly its efficiency than has been possible since it was put in operation, only a few weeks ago.

I have spoken already of the plan under consideration for the enlargement of the waiting-rooms of the Lower Hall. Its necessity was constantly apparent during the past winter; and on some days, at certain hours, the crowd was almost unmanageable for purposes of a prompt supply of books.

No definite arrangements have yet been made for the contemplated enlargement of the South Boston Branch, though I have long since submitted a plan to the City Architect. The need of action is pressing. At Charlestown it has

become necessary to give more space to the public waiting for books by transferring to such purpose a portion of the space devoted to the reading-room. At Roxbury the Trustees of the Fellowes Athenæum are now finishing a room in the upper part of one of the towers of the Library building, which will give much needed accommodation for the accumulation of unbound newspapers, pamphlets, etc. It will probably be necessary during the year to shelve an additional wall-surface in the book-room to accommodate the rapidly growing collection of the Fellowes Athenæum.

By the figures of Appendix I. it will be seen that the Library now holds about 313,000 volumes, — an enumeration probably in advance of that of any other Library in the country. The net increase of the year includes the collection of books relating to the West Indies, and to the immigration of poor into this country at an early period, which had been collected by the late Benjamin P. Hunt, of Philadelphia. The books as received numbered 612 bound volumes; but with them came a mass of manuscripts, maps, views, etc., which have now been arranged in other volumes, so that the collection at present numbers nearly 700 volumes. They are accompanied by a catalogue, annotated with care, which is likely to be of great service in the cataloguing of them under our own system. Among them are also some manuscript treatises, which are thus described in the catalogue: —

With this collection of books, manuscripts, maps, charts, etc., relating to the West Indies, are included, —

First. — An unfinished account of "The Haytians," by Mr. B. P. Hunt, of Philadelphia, with their social, moral and political condition at the time of the author's residence in the island, from 1840 to 1857, making about 120 folio pages.

With this account of "The Haytians" are six note-books, of different sizes, filled with cuttings from newspapers, extracts from books, items of information, and incidents which came under Mr. Hunt's observation.

Second. — A History of Hayti, or the French part of the island of St. Domingo, from 1625 to 1695, consisting of 172½ folio pages in manuscript, written by Mr. B. P. Hunt, of Philadelphia, and by him left as a part of his bequest to the Public Library of the City of Boston, in the hope that at some future time sufficient interest would be taken in the subject to induce some student of the island's history to complete it.

Third. — "The Redemptioners; or, Some Account of the early Emigration of the Poor to America, and its Causes." By Mr. B. P. Hunt, of Philadelphia.

With this unfinished manuscript, consisting of about 112 4to pages, are eight volumes of MS. notes, comprising extracts from books, newspapers and records, all bearing upon the condition of the poor, from feudal times to the present, together with a small pocket note-book, containing a list of all the books and newspapers from which extracts have been made in the eight large note-books.

This history of "The Redemptioners," with the note-books which accompany it, was also given to the Public Library of the City of

Boston, by its author, in the hope that some individual, studying this interesting subject, would be induced to complete it.

Our first knowledge of the bequest came through the following letter: —

PHILADELPHIA, Feb. 23, 1877.

To the President of the Boston Public Library: —

DEAR SIR, — Mr. Benjamin P. Hunt, formerly of Chelmsford, Massachusetts, but for many years a citizen of Philadelphia, died on the 2d inst. In his will (of which his widow and I are executors) it is thus contained: —

"I give and bequeath to the Public Library of the City of Boston, Massachusetts, of which Justin Winsor appears to have been on June 21st, 1871, the Superintendent, my collection of books, pamphlets, manuscripts, maps, charts and engravings relating to the West Indies, the titles and descriptions of which are contained in a catalogue marked on the cover 'Special Catalogue of Books, etc., relating to the West Indies,' and I direct that this catalogue, now deposited on my Library table, shall accompany the said collection, which shall be delivered within three months after my death."

And by codicil the testator further directs: —

"I give to the Public Library of the City of Boston, to which I have given my West India books and papers, all my manuscripts, notes and collections relating to the Emigration of the Poor and to Hayti, which shall not be otherwise disposed of at the time of my death."

I have no special knowledge of the value of the bequest, but am informed that the late Mr. Hunt (whose interest in and study of the subject entitled him to an opinion) considered this collection to be second only to one now in Paris.

In pursuance of my duty, I make this formal notification, and will only add that the executors will, of course, comply with the directions of the will as to time of delivery. When the necessary formalities of inventory, etc., are completed, I will write you again.

Very truly,

JOSEPH PARRISH,
Executor.

A sketch of the life of Mr. Hunt has been furnished by his executor, at my request, and may be found, with other accounts of the bequest, in Appendix XXIX.

The accessions for the year as reported do not include nearly a hundred volumes, which are now in the bindery, and illustrate the history and character of the Philadelphia Exhibition. They embrace pamphlets, circulars, advertisements, maps, prints, photographs, etc., etc., pertaining thereto, which were gathered for us, and transmitted monthly by an agent, who was in Philadelphia during the continuance of the exhibition. The labor of arranging and scrapping has been chiefly done by the Assistant Office Secretary. In addition to this, the exhibition is illustrated on our shelves probably by as many more volumes, which were either issued as books or disposed of as such on receipt.

We have aimed to gather all local historical tracts and

other publications which the Centennial year has called forth; and, had it not been for the thoughtful care of the Rev. Dr. Tuttle, President of Wabash College, we should not have been able to trace a large number, particularly relating to the local records of parishes of the Presbyterian Church.

The tariff seriously interferes with the promptness with which we can put new and popular foreign books before the public of our Branches. Only two copies of a book are allowed to be imported at one time under the clause of exemption from duty; and we have consequently been obliged to make a succession of importations by twos. A letter to the Secretary of the Treasury, calling attention to the peculiar constitution of our institution, as a congeries of libraries, but under one direction, was duly considered, but no way was found to change the interpretation of the law. A statement of the case was entrusted to our Representative in Congress, the Hon. Henry L. Pierce, who kindly brought the difficulty to the attention of the Committee on Ways and Means, but without as yet any result.

It will be remembered that when the Prince Library came into our custody it contained but two of the five copies of the Bay Psalm-book which originally belonged to it. The others had been parted with for a consideration, and were respectively in the keeping of the late Dr. N. B. Shurtleff, of the late George Brinley, of Hartford (who had received it from the estate of the late Edward A. Crowninshield), and of the late George Livermore, of Cambridge. After the death of Dr. Shurtleff, the copy which had been in his possession, and which was the most interesting of them all, as it had belonged to Richard Mather, one of its compilers, was offered for sale at public auction, December 2d, 1875, and an injunction was served to prevent the sale, at the instance of the Deacons of the Old South Church, who are the legal owners of the property, as trustees, the Boston Public Library holding under a contract by them with the city as sub-trustees. The claim of the counsel of the Deacons was, that the sale of the book to Dr. Shurtleff was illegal, because of the want of authority in them as Trustees to alienate any part of the trust; and evidence was adduced, showing that it was known at the time that the books given by Dr. Shurtleff in payment were not equivalent in value, and that it was the understanding of all parties to the transaction that the book would in due time be returned to its proper repository. The defence claimed a notorious possession of the book for fifteen years, and plead the statute of limitations. The court sustained the latter

point. The volume was afterwards sold by auction, October 12th, 1876, to Mr. C. Fiske Harris, of Providence, for $1,025, to whose collection of American poetry, the finest in the country, it proved an important contribution, as the first book and first collection of verse printed in British America. This decision removes all chance of successful claim to the other two copies, both of which are now, or may hereafter be, offered for sale as parts of their respective collections.

In 1858 the kindly appreciation of this Library entertained by the family of the late Dr. Nathaniel Bowditch induced them to place with us his collection of books, which is known as the Bowditch Library, and it has added largely to the value of our mathematical department. The eldest son of that family, J. Ingersoll Bowditch, Esq., has within the year handed in his check for $500, to be expended on works in pure mathematics, to be added to his father's collection, and placed under the same conditions. Communication has been opened with Prof. J. M. Peirce, of Cambridge, with President Runkle, of the Institute of Technology, and with Mr. Seaver, the head-master of the English High School, for their assistance in a selection of titles.

Early in the year the balance of money, amounting to $335.13, as due the Library under the agreement of the previous year, by which the Lower Mills Delivery was established, and the books of the Dorchester and Milton Circulating Library were turned over to the city, was received and paid into the treasury, where it is hoped it will become the nucleus of a fund to be held for the benefit of the Dorchester Branch.

The figures in Appendix XII. will show that the circulation of the year has increased nearly 20 per cent. on that of the previous year, the gain in the several departments being independently as follows: —

Bates Hall,	24 per cent.	South Boston,	17 per cent.
Lower Hall,	16 "	Roxbury,	45 "
East Boston,	13 "	Charlestown,	24 "
Brighton,	20 "	Dorchester,	9 "

The aggregate of issues shows a change in the relative business of some of the Branches. South Boston, which has been first, yields that position to Roxbury, which gains it doubtless in part from the help that the Delivery at Jamaica Plain and the circulation of the books of the Fellowes Athenæum afford, and partly from the impetus naturally following upon a new edition of its Catalogue. In the third and fourth

places, East Boston has given place to Charlestown without so apparent reasons. The circulation of both of these Branches suffers doubtless from the interval that has passed since their respective Catalogues were printed. The discouragement arising from the use of old Catalogues in a Library of great use, with a consequent displacement of books, from wear and tear, will be understood from the results of an examination of 53 unsuccessful calls for books not fiction in the Lower Hall, one day in March last, which disclosed that 28, or over half, no longer existed, though still standing in the printed catalogues.

The large demand for books shown during the year has been partly due no doubt to the large number of people out of employ. This is shown in part in the great increase of books issued for use in the buildings. The gain over last year in this particular is five times that of the home issues. There has been a great difference in the increase of such use in the several departments, as follows: —

Dorchester,	388	per cent.	Brighton,	54	per cent.
South Boston,	224	"	Charlestown,	36	"
Roxbury,	126	"	Bates Hall,	28	"
East Boston,	55	"	Lower Hall,	23	"

The calls for books have been so much in excess of the supply that users of the Library suggested, what seemed pertinent, that some plan should be devised for insuring a prompter return of books loaned, so that a larger number of people could have the perusal of the same book in a given time. Investigations showed that scarcely more than one-third of the books were kept over a week, and that the proportion could well be reduced without more hardship to present readers than might reasonably be endured out of regard to expectant ones. Accordingly, on the first of November, a change of the rules was made, by which books were allowed to the same borrower for no longer period than one week, with the right to renewal for a fortnight longer in the case of books not newly added. The operation of this rule can be seen from the following table, which shows the gain in percentage of issues over the corresponding month of the previous year: —

DEPARTMENTS.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	Average for 1st 6 mos	Average for 2d 6 mos.
Bates Hall	42	16	. .	11	21	17	29	25	30	20	25	18	18	24
Lower Hall	44	26	23	30	31	12	23	14	9	3	8	3	27	10
East Boston	9	. .	2	12	20	8	11	17	16	9	20	9	8	14
South Boston	7	. .	. .	9	23	10	29	33	22	13	29	18	8	24
Roxbury	13	11	20	30	43	37	60	64	60	53	64	45	26	58
Charlestown	24	23	16	30	31	13	31	31	31	6	27	11	23	23
Brighton	11	10	17	20	36	9	60	35	14	17	19	3	17	25
Dorchester	12	9	6	16	25	6	29	16	. .	. .	9	. .	12	9
Total	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	139	187

These figures show a clear gain of about one-third for the entire Library under the new rule. In the Bates Hall, where it was apprehended, on account of the character of the books, that the rule might work a detriment to the circulation, the gain has been 33 per cent. In the Lower Hall the decline — though there is still an absolute gain of issues — has been equally marked; but it is chiefly to be accounted for from the crowded state of its Delivery Hall in the winter months, compared with the summer. In fact, the capacity of that department for an increase of use is about reached, except in the months of lighter service. Of the Branches, Dorchester alone shows a gain diminished by 25 per cent.

The various catalogue work of the Library has gone forward as usual, under the general charge of Mr. Whitney, who has specially cared for the progress through the press of the Ticknor Catalogue, which is likely to be completed during the coming year; at the present writing, the letter M being in the printer's hands. An additional value will be given to it, by including all Spanish books in other sections of the Library; and by references in the notes to works elucidating the principal subjects, where the resources of the general Library amplify the facilities of the Ticknor Library. The publication of the Memoirs of Mr. Ticknor during the year has augmented the interest in the collection; and in those memoirs the public has again been able to judge of the important part which Mr. Ticknor played in forming the Library, and in shaping its policy. The cataloguing of the Barton Collection has been in the immediate charge of Mr. Hubbard, and is progressing at a rate which may warrant the printing of the Shakespearian section of it during the year.

Meanwhile, the books have been made accessible to the public by the insertion of brief main entries, for a temporary purpose, in the Public Card Catalogue. The Superintendent's Monthly Reports have continued the Shakespearian notes; and through the favor of Wm. F. Fowle, Esq., formerly of Boston, now of London, the wealth of the British Museum in the early quartos of Shakespeare, with collations and descriptions, have been put in print for the purpose of comparison with the resources of the collections of this country. A brief tentative essay, on the bibliographical contributions of America to Shakespearian knowledge, was prepared early in the year from the Barton shelves, by Mr. Carl Knortz, and published in Boston, as prelimininary to a contribution on Shakespearian Study in America, which that gentleman intends to make to the Shakespeare-Gesellschaft of Germany.

The Quarterly Bulletins have been made, as heretofore, the vehicle of bibliographical communications, which may be of interest to studious classes; and efforts have been made by sending them to such for the purpose of enlarging the circle of our patrons. It is hoped that in this way the considerable class who are interested in the study and progress of mental philosophy may have profited by the work of Mr. F. B. Perkins, the office secretary, on that topic; and the numerous classes, whose perceptions of artistic beauty have been awakened of late years, through the Art Club, the Bric-à-brac Club, the schools of art, and the beneficent influence of the Museum of Fine Arts, have derived, it is apparent, not a little assistance from the paper on "Pottery and Porcelain," which was prepared by Col. Ware, the keeper of the Bates Hall. In the address which was made by the Mayor, at the formal opening of the Art Museum, on the 3d of July last, he spoke of the Library and that institution as the crown of our educational system. There is every chance for the two to work in harmony, with the President of our Trustees, *ex-officio*, a member of the Board of Trustees of the Museum.

I have spoken in the earlier part of this report of other subjects which the Bulletins have followed, and of the characteristic features which were given to the new editions of the Catalogues of the Roxbury Branch, and of prose fiction in the Lower Hall. Following an example which was set by Mr. Poole, of the Chicago Library, five hundred copies of the forty-five hundred which constituted the edition of the Fiction List were printed on a Manilla paper, of the same weight to the ream, forty pounds, with the ordinary white paper on which the rest were printed. The Manilla

costs $8\frac{1}{2}$ cents per pound, against $11\frac{1}{4}$ for the white. The experience of Mr. Poole, and of our own use of the sheets during the printing, is, that with the copies for public use the duration of wear is increased by at least a third. As the appearance is agreeable to the eye, there seems no reason why Manilla should not become a favorite paper for catalogues, and indeed for school-books, and works of reference requiring much handling. The printers soon learn that it must be put on the press dry.

The usual broadside-sheets of the gelatine process have been continued, and 338, of 20 titles each, have been prepared, and cut up and inserted in the various Card Catalogues, against 260 for last year. In addition, an increased extent of cataloguing has been done in manuscript, where the use is temporary, pending the printing of volumes, and where the requirements for cross-references have been small. The work of transcribing, inscribing, and assorting may be judged from a record of nearly 107,000 cards being put in the several Card Catalogues, against 70,000 for last year.

The indexing of the United States documents has been completed, consolidated and revised by Mrs. Eastman. As the work approached completion, a petition of the Trustees, joined in by the principal libraries and literary societies of the country, was presented to Congress, through the Hon. Henry L. Pierce, asking that the work which had been done for our own community should be made available for others by being printed. The matter was referred to the Committee on the Library of Congress; and some correspondence ensued, by which it appeared that a consolidated index, not only of the regular documents of Congress, but also of the Congressional Globe and the Journals of the Houses, was in preparation, under the charge of the Librarian of Congress. The committee further expressed a wish that the Index of the Documents, as prepared by this Library, should be intrusted to Mr. Spofford, to be embodied in his general index. In this way the matter has been for the present left.

I have already mentioned, as one of the results of the Philadelphia conference, that, under the co-operation of various Libraries, a new edition of Poole's Index to Periodicals is to be prepared and printed. As the work is likely to be for a considerable period in hand, and as the references to current periodical literature is one of the growing uses to which our Library is put, it was arranged, some months since, that about fifty of the chief periodicals of this and other countries should be immediately, on receipt of the successive numbers, distributed to certain of the principal officers, and indexed on uniform slips of paper. These slips

are handed in to the keeper of the Bates Hall, and are kept by him in an alphabetical order for consultation.

The Appendix contains the usual tables recording the proportions of the various classes of books as sent into circulation. It will be seen that there is little change in these ratios. The most significant and gratifying is a marked diminution, since 1873, of the use of ficton in the Lower Hall; but it is apparent that the change has been brought about by the methods of instruction which we employ. The natural craving of the masses is for story-telling. It cannot be eradicated. The attempt would only drive the frequenters of the Library away in large numbers. I look upon the dominating taste in reading, as Kant regarded the general tendencies of mankind, — to accept it and to strive to better it. The wise course is to regulate it, and to use the instinct as a means of its own improvement. I selected one Saturday in the height of our season, and directed that all slips, handed in at the Lower Hall counter, which failed to secure a book, should be saved. They numbered nearly 5,000, showing that twice as many slips failed of their purpose as succeeded. An analysis of these requests shows that 404, or about a twelfth part, only were non-fiction; more than two-twelfths were a miscellaneous assemblage of novels, each asked for once, twice, or perhaps thrice, but not sufficiently characteristic to signify any marked intent. Over 500, or more than a tenth part, were calls for dime novels, but few of which are now left in the Library, — the remnants of a set which were, some years ago, experimentally put into use, but which at this time still stood in the printed Catalogues which were on hand. The single author most in request was Horatio Alger, jr., a writer for youths, whose books were marked on 390 slips. Mrs. Southworth came next, 301 times; then Oliver Optic, 292; Dumas, 199; Mrs. Stephens, 158; Miss Braddon, 154; Mrs. Holmes, 146; Fosdick, a writer for boys, 125; Fleming, 87; Kingston, a boys' writer, 83; Ainsworth, 69; Mrs. Wood, 60; Grant, 59; Lever, 58; Mrs. Grey, 54. The most sought-for single book was Alger's "Timothy Crump's Ward," — 64 times. Almost a quarter of the entire number may be called juvenile books. Over a third certainly would class among the lower grades of popular novelists, without counting such as were not popular and of this grade. About a sixth of the whole may be considered from fair to first class as to literary merits. Out of this 4,875 total, some of the well-known names in literature stand low in the scale of demand, as, for instance, Don Quixote, 2; Jane Austen, 2; Goldsmith, 2; Swift, 3; Goethe, 4; George Sand, 4; Scott, 5; Thackeray, 5; George Eliot, 9; Hawthorne, 10; Bulwer, 10; Charles Reade, 10; Miss Muloch, 10; Dickens, 25;

Wilkie Collins, 27; Cooper, 34; Marryat, 44; James, 44.

This record should not afford the foundation for off-hand conclusions. The hours during which the slips were saved were the busiest of the week, and which the better readers shun. Duplicates of the higher class of novels being supplied on less urgency than those of inferior position, the exhaustion of such books signifies a relatively greater demand than is the case with the lower classes. It should always be further borne in mind that in public Libraries the demand for the better books is considerably lessened, from the fact that such books are bought more commonly for the family book shelf than the inferior ones. It is for this reason that reputable authors of popular fame, like Irving and Hawthorne, never represent, in the circulation of public Libraries, their hold upon readers.

On the other hand there is compensation in the growing circulation of the Bates Hall, representing the highest reading. Fifty-two per cent. of its issues are for reference in the building. A seventh part of the books recommended for purchase are in foreign languages.

A scrutiny was made in April of 200 issues to the firemen in one day, as indicating the average demands of adults. Only one-third was fiction, and the proportion of the lower grades was low. Of the remainder the selections indicated a wide range of interests, and exhibited a very creditable standard of intellectual requirements for a responsible arm of our municipal service.

The large circulation for the year has been maintained with the same satisfactory immunity from loss as before. Out of nearly 1,200,000 issues only 129 are unrecovered, or one in eight or nine thousand. The Central Library sustains the burden of this loss. In the Branches it has proved possible to deliver at Roxbury 146,829, with no loss whatever; at South Boston, 135,179, with a loss of two; at Charlestown, 106,816, with a loss of three; at East Boston, 102,607, with a loss of four; at Brighton, 29,792, with a loss of one; and at Dorchester, 71,979, with no loss at all. That is, an aggregate Branch delivery has amounted to 593,202, with a total loss of ten, or one in nearly 60,000 issues. The heavier loss of the Central Library arises, as I have several times before explained, from the greater difficulty of tracing delinquents in the larger masses of the City Proper. It is one in 4,599 for this year, against one in 4,824 for last year, and in 5,124 for the year before. One kind of loss, which swells the aggregate at the Central Library, arises from the delivery of books for hall use from the Lower

Hall. Green slips for drawing such books used to be exposed, to be taken at will; but for two or three years past they have only been given to special applicants, each of whom comes under an officer's eye. Nearly 13,000 volumes are thus given out in the Lower Hall during the year, and of them nine were not returned, or one in 1,400 or 1,500. The proportion is a good deal larger than the loss from books delivered for home use, and may not yet have become alarming; but it proves the value of our method of establishing identity, as is required for the issue of a card to those who draw books for home use. It may possibly be necessary to establish some further checks. It is not the fault of the system, for 74,786 such issues were made in the Bates Hall, without any loss; but the difficulty lies in the lessened supervision of the crowds which fill the lower halls.

Late in the year a considerable increase of the force in the bindery was made, as it was apparent that the accumulation of books needing binding or repairs increased beyond our power to dispose of them. Notwithstanding this strengthening of that service, the balance of work and accomplishment is not yet reached, and I am fearful that we shall fall still further behind the coming year. The wear and tear of the books naturally increases year by year; and with the constantly growing accessions the ability of the bindery to meet our requirements is severely taxed. We have introduced during the year an expeditious way of binding pamphlets. Covers of various sizes, half bound in leather, are kept in stock, and from one to three pamphlets, as their importance may determine, being in the first place stitched with stout thread, are attached to guards within the covers. The style is serviceable for the purpose, and not only relieves the bindery, but expedites the accessibility of such publications. Notices of the discussions on binding at the Philadelphia conference elicited statements in the English journals regarding the use of buckram instead of leather; and I learned from Mr. Nicholson, the Librarian of the London Institution, that ten years' use had satisfied them of its excellent qualities for durability, while gas-lighted and heated apartments may render it much more permanent than any leather. The article is a stout linen cloth, of various colors, highly glazed, and may be used with a leather lettering piece, or it will take tooling of itself. The samples which have been produced in our bindery, with loose joints, such as are used in parchment or blank work, and dressed with varnish on completion, present a satisfactory appearance. The article has never been introduced into this country, but I have brought it to the attention of importers of Scotch linens, who

will introduce it at once. As the duty is 40 per cent. *ad valorem*, its cost compared with American skins may be increased to make it more nearly equal to that of leather than it is in England.

The pressure of the times caused us to figure so closely at the beginning of the year on the anticipated cost of maintenance for the year, that I expressed in my last report an apprehension of the result. We were with difficulty enabled to compass our outlay with the funds at disposal, and it would have been impossible without the balances abroad with which we opened the year. I feel under the same difficulties regarding the allowance for the coming year. It certainly will not permit us to extend our usefulness to meet all the demands upon us, and the amount to our credit in Europe will not compare with that of last year. For the several items we can depend as follows: —

Binding.—	City appropriation . . .	$5,500 00
Books and Periodicals.	City appropriation . . .	15,000 00
	Balance with Barings, London .	2,192 78
	Balance with Flügel, Leipzig .	382 77
	Balance with Riaño, Madrid .	197 34
	Bowditch deposit . . .	500 00
	Income from funds . . .	6,300 00
Catalogue. —	City appropriation . . .	6,000 00
Fuel.	" " . . .	4,000 00
Furniture.	" " . . .	2,000 00
Gas.	" " . . .	5,000 00
Expense, etc. —	City appropriation . .	3,000 00
Printing and Stationery. —	City appropriation,	6,000 00
Salaries (including binders)	" "	70,626 00
Transportation, postage, etc.	" "	3,000 00
Total		$129,698 89

Of the above sum $120,126 is the regular appropriation of the City Council. The total available for books and periodicals is $24,572.89, and if binding and the salaries of binders is included, $40,224.89. Besides this there is the income of the Fellowes Fund, for the benefit of the Roxbury Branch, on account of which $1,833 has been spent the past year. There has been no change in the investment of our funds (see Appendix XXV.); and the financial statement for the year is given in Appendix XXIV.

I cannot close this statement of the year's work, and this review of a ten years' service, without reference to the general good feeling and spirit of emulation in fidelity

which has on the whole characterized the staff. I think the Library owes much to an *esprit de corps* among its servants, who have felt that they were sharers in the advantages of its good name. Barely ten of the hundred and forty names of the regular and extra service now on our rolls were on it when it fell to my lot to direct their labors. Of the important officers, who have been associated with me, the name of one must show the asterisk of death. The late Assistant Superintendent, Mr. William A. Wheeler, entered the service only a few months after my own appointment, and until his death, in October, 1874, he was my coadjutor and friend, — two terms mutually suggestive, and which I will not here qualify with a redundance, that can avail nothing. In the Board of Trustees the term of service of their President now embraces more than a score of years, and his recollections of the Library's career extend beyond that of any one in the Board or on the staff. Only one other member of the Board, Mr. Weston Lewis, can date his acquaintance with the Library as far back as my own. The Chief Janitor of the institution, Mr. William E. Ford, leads in seniority on the staff, his entrance into the service dating back to 1858.

Finally, let me say, that if much has been done, a great deal remains to do. The same spirit of mutual accommodation and common endeavor, which has brought the Library where it is, can but carry it onward towards a goal continually receding, only because one step of development opens the way to another.

Respectfully submitted,

JUSTIN WINSOR,
Superintendent.

PUBLIC LIBRARY, May 1st, 1877.

APPENDIXES

TO THE

SUPERINTENDENT'S REPORT.

1877.

LIST OF APPENDIXES.

I. Extent of the Library (by Years).
II. Yearly Increase by Purchase and Donation.
III. Extent of the Bates Hall Collection.
IV. Extent of the Lower Hall Collection.
V. Sale Duplicates and Odd Volumes.
VI. Increase of the Several Departments.
VII. Increase from Newly Published Books.
VIII. Volumes Located in Bates Hall.
IX. Bates Hall Classifications.
X. Lower Hall Classifications.
XI. Funds and Donations.
XII. Circulation.
XIII. Registration of Applicants.
XIV. Books Recommended. Use of British Patents.
XV. Bates Hall Reading.
XVI. Lower Hall Reading.
XVII. East Boston Reading.
XVIII. South Boston Reading.
XIX. Roxbury Reading.
XX. Brighton Reading.
XXI. Dorchester Reading.
XXII. Periodical Reading Rooms.
XXIII. Losses and Delinquents.
XXIV. Financial Statement.
XXV. Library Funds.
XXVI. Library Service.
XXVII. Report on the Examination of the Shelves.
XXVIII. Work in the Library Bindery.
XXIX. The Hunt Bequest.

APPENDIX I.

EXTENT OF THE LIBRARY BY YEARS. [W.]

Years.		Total Volumes in the Libraries.	Central Library.				East Boston Branch.	South Boston Branch.	Roxbury Branch.			Charlestown Branch.	Brighton Branch.	Dorchester Branch.	Jamaica Plain Branch.	Pamphlets added from the beginning.
			Bates Hall.	Lower Hall.	News-paper Room.	Duplicate Room.			City Part.	Fellowes Athenæum.	Total.					
1 . .	1852–53	9,688	. . .	. . .	Previously included in the Bates Hall collection.	. . .	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	961
2 . .	1853–54	16,221	. . .	. . .		. . .	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	3,950
3 . .	1854–55	22,617	. . .	. . .		. . .	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	6,507
4 . .	1855–56	28,080	. . .	. . .		. . .	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	12,386
5 . .	1856–57	34,896	. . .	. . .		. . .	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	16,053
6 . .	1857–58	70,851	. . .	. . .		. . .	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	17,938
7 . .	1858–59	78,043	60,420	15,819		1,804	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	19,255
8 . .	1859–60	85,031	66,228	17,000		1,804	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	20,707
9 . .	1860–61	*97,386	75,217	19,161		3,008	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	27,381
10 . .	1861–62	105,034	79,359	20,881		4,794	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	28,874
11 . .	1862–63	110,563	82,801	22,525		5,237	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	31,043
12 . .	1863–64	116,934	88,226	23,592		5,116	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	31,837
13 . .	1864–65	123,016	93,172	24,860		4,984	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	32,553
14 . .	1865–66	130,678	100,171	25,366		5,141	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	36,566
15 . .	1866–67	136,080	105,735	*25,199		5,146	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	44,443
16 . .	1867–68	144,092	111,681	26,606		5,805	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	47,254
17 . .	1868–69	152,796	117,967	28,723		6,106	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	61,177
18 . .	1869–70†	160,573	124,419	29,909		6,245	. . .	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	74,770
19 . .	1870–71	179,250	135,786	30,574		*6,954	5,936	. . .	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	89,746
20 . .	1871–72	192,958	142,685	31,827		*7,314	6,767	4,365	. . .	. . .	. . .	. . . .	. . . .	. . . .	. . . .	100,383
21 . .	1872–73	209,456	149,477	32,605	2,111	*8,183	7,291	5,174	3,750	865	4,615	. . . .	. . . .	. . . .	. . . .	112,153
22 . .	1873–74	260,550	168,748	32,590	2,212	9,490	7,812	5,807	4,793	2,195	6,988	15,788	11,037	74	24	134,628
23 . .	1874–75	276,918	175,122	33,395	2,604	9,938	8,393	6,522	6,043	2,767	8,810	16,690	11,442	3,959	43	150,921
24 . .	1875–76	297,873	184,938	35,152	2,939	11,321	9,037	7,288	7,181	3,524	10,705	17,394	11,911	7,106	82	181,653
25 . .	1876–77	312,010	*192,326	*35,478	*3,096	11,985	9,643	8,178	8,273	4,262	12,535	18,084	12,317	8,147	221	196,958

NOTE.—The figures under Jamaica Plain are reservations from duplicates for such prospective Branch. * Actual count. † Nine months.

NOTE.—The aggregate of pamphlets "added from the beginning" includes many since bound, singly or in groups (which are now counted among volumes), and a very large number of duplicates, which are thrown out and put among the pamphlets held for exchange.

APPENDIX II.

YEARLY INCREASE OF THE WHOLE LIBRARY BY PURCHASE AND BY GIFTS. — [W.]

NOTE. — The increase of volumes is not the sum of those added by gift and purchase, etc., because lost and condemned books are deducted.

Years.		Increase. (*Net* after 1861.)		Gifts.		Purchases, including those charged to funds and added by exchange.		Fellowes Athenæum.†	Donors, excluding anonymous.
		Vols.	Pamph.	Vols.	Pamph.	Vols.	*Pamph.	Vols.	
1 . . .	1852–53	9,688	961	4,000	961	5,688	. . . . .	. . . .	75
2 . . .	1853–54	6,533	2,989	2,152	2,989	4,381	. . . . .	. . . .	105
3 . . .	1854–55	6,396	2,557	2,663	2,468	3,733	89	. . . .	153
4 . . .	1855–56	5,463	5,879	1,865	5,330	3,598	549	. . . .	126
5 . . .	1856–57	6,816	3,667	1,686	3,646	5,130	21	. . . .	132
6 . . .	1857–58	35,955	1,885	30,214	1,885	5,741	. . . . .	. . . .	381
7 . . .	1858–59	7,192	1,317	3,405	1,317	3,787	. . . . .	. . . .	247
8 . . .	1859–60	6,989	1,452	3,744	1,452	3,245	. . . . .	. . . .	207
9 . . .	1860–61	16,948	6,674	12,299	6,656	4,649	18	. . . .	242
10 . . .	1861–62	7,391	1,493	1,274	1,493	6,117	. . . . .	. . . .	234
11 . . .	1862–63	5,529	2,169	829	1,958	4,700	212	. . . .	194
12 . . .	1863–64	6,226	2,939	1,081	2,772	5,145	167	. . . .	219
13 . . .	1864–65	6,082	1,516	804	1,026	5,178	490	. . . .	328
14 . . .	1865–66	7,662	4,013	1,476	3,342	6,286	671	. . . .	336
15 . . .	1866–67	5,303	7,877	1,465	7,769	7,732	108	. . . .	300
16 . . .	1867–68	7,673	2,811	1,554	2,513	6,396	298	. . . .	342
17 . . .	1868–69	8,685	13,923	2,138	10,984	6,531	2,939	. . . .	649
18 . . .	1869–70	7,775	13,593	1,643	10,228	6,129	3,365	. . . .	666
19 . . .	1870–71	18,099	14,976	9,750	10,805	8,349	4,171	. . . .	604
20 . . .	1871–72	13,708	10,637	4,349	5,831	9,359	4,806	. . . .	610
21 . . .	1872–73	14,644	11,770	3,939	8,060	10,705	3,710	865	601
22 . . .	1873–74	51,094	22,475	4,783	17,138	18,671	5,337	1,330	739
23 . . .	1874–75	16,372	16,293	4,169	15,899	17,080	394	572	1,091
24 . . .	1875–76	20,955	30,732	5,749	5,891	15,206	24,841	759	694
25 . . .	1876–77	16,974	13,305	3,562	11,071	16,544	2,234	738	1,125

* Includes pamphlets added both by purchase and exchange, as taken from the Accession Catalogue.

† Included in previous columns. These volumes are not the property of the Public Library, but form a part of the Roxbury Branch by agreement.

(6) Of the increase, 24,618 were the Bates gift.

(9) Of the increase, 11,721 were the Parker bequest.

(19) 3,774 volumes of the Ticknor bequest, and 2,682 from the Sumner Library Association, are included in the increase.

(20) 1,471 volumes from the Mattapan Literary Association are included in the increase.

(22) The increase of this year includes the totals of the libraries at Charlestown and Brighton, and also, under purchases, the Barton Library.

(24) The purchases of this year include thirty volumes to replace books in the Bates Hall long lost. The great accession of pamphlets came from the purchase of duplicates from Harvard-College Library.

APPENDIX III.

EXTENT OF THE BATES HALL COLLECTION IN VOLUMES. [G.]

	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877
The General Library	87,658	93,553	101,428	107,724	115,232	121,709	126,207	133,585	140,379	145,147	154,951
Patent Library	.....	.....	.....	.....	.....	.....	‖2,120	2,323	2,457	2,596	2,731
Bowditch Library*	2,542	2,542	2,542	2,542	2,542	2,542	2,542	2,542	2,542	2,542	2,592
Parker Library*	†11,907	11,907	11,907	11,907	11,907	11,907	11,907	11,907	11,935	12,292	†12,291
Prince Library	1,952	1,952	1,952	1,952	‡1,970	1,970	1,970	1,970	1,970	1,970	2,028
Ticknor Library	.....	.....	.....	.....	3,774	§3,907	3,907	3,907	3,940	4,285	4,929
Barton Library	.....	.....	.....	.....	.....	.....	.....	12,057	11,902	**12,108	12,804
Entered on the Accession Catalogue, but not yet located	1,678	1,327	140	294	361	651	829	187	.....	591	.....
	105,737	111,281	117,969	124,419	135,786	142,686	149,482	166,453	175,125	181,531	192,326
Condemned	0	0	2	0	0	1	5	0	3	2	.....
Total	105,737	111,281	117,967	124,419	135,786	142,685	149,477	166,453	175,122	181,529	¶192,326

* See Appendix IX.
† Including 186 duplicates, which are boxed and stored in the basement.
‖ Included before 1873 in the General Library. Now in charge of a special curator.
‡ Including 18 vols. of MSS.
§ Includes 31 vols. of MSS., as bound.
** The number given in 1874 was as near as could be reckoned before the entry on the Accession Catalogue was made. The number given in 1875 is what had actually been entered, and the full number is given this year.
¶ Actual count.

APPENDIX IV.

EXTENT OF THE LOWER HALL COLLECTION. [G.]

	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877
Reported the preceding year . .	. . .	25,199	26,606	28,723	29,909	30,574	31,827	32,605	32,596	33,395	35,152
Added during the year	. . .	2,003	2,469	1,417	2,780	2,614	1,799	1,465	3,385	3,570	3,830
Total	. . .	27,202	29,075	30,140	32,689	33,188	33,626	34,070	35,981	36,965	38,982
Books transferred to Bates Hall . .	. . .	339	93	19	23	7	1	6	37	394	19
Books transferred to Branches . .	. . .	. . .	. . .	. . .	859	535	342	166	10	. . .	27
Condemned during the year	. . .	257	259	212	1,233	819	678	1,308	2,539	1,419	1,655
Losses of ten years	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1,803
Total left . .	*25,199	26,606	28,723	29,909	30,574	31,827	32,605	32,596	33,395	35,152	*35,478

* Actual count.

Note. — The "Losses of ten years" are explained in Appendix X.

APPENDIX V.

SALE DUPLICATES AND ODD VOLUMES. [K.]

(Not including the Parker duplicates, or a large lot of odd and imperfect volumes of books, not likely to have the missing volumes supplied, which are boxed up at intervals.)

	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877
Number at beginning of year . . .	4,955	5,146	5,805	6,106	. . .	6,954	7,314	8,183	9,490	9,938	11,321
Added during the year	714	1,004	847	443	383	996	1,375	1,641	1,234	1,902	1,015
	5,669	6,150	6,652	6,549	. . .	7,950	8,689	9,824	10,724	11,840	12,336
Disposed of	523	345	546	304	234	636	506	334	786	519	†351
Total	5,146	5,805	6,106	6,245	*6,954	*7,314	*8,183	9,490	9,938	*11,321	11,985

* This number is by an actual count of the serviceable volumes now arranged in our Duplicate Room; and it includes one hundred and fifty-eight volumes of newspapers.

† Of these 294 were parted with on exchange account, and 57 were transferred to different departments of the Library.

Note. — There are also of pamphlets some forty thousand duplicates, arranged and ready for exchanges. Libraries are invited to make such exchanges.

APPENDIX VI.

INCREASE OF THE SEVERAL DEPARTMENTS. [W.]

		1868	1869	1870	1871	1872	1873	1874	1875	1876	1877
Bates Hall.	Gain in located books (App. VIII.) . . .	6,297	7,475	6,296	7,508	10,384	6,622	6,198	6,564	9,227	9,337
	Of these not located at last Report . . .	1,678	1,327	140	294	4,135	651	829	187	. . .	591
	Added and located	4,619	6,148	6,156	7,214	6,249	5,971	5,369	6,377	9,227	8,746
	Added and not located . . .	1,327	140	294	4,135	651	829	*12,244	. . .	591	303
	Total gain . . .	5,946	6,288	6,450	11,349	6,900	6,800	17,613	6,377	9,818	8,443
	Condemned . .	. . .	2	. . .	. . .	1	5	. . . .	3	2	21
	Net gain . . .	5,946	6,290	6,450	11,349	6,899	6,795	17,613	6,374	9,816	8,422
Lower Hall.	Gain in books .	2,003	2,469	1,417	2,780	2,614	1,799	1,465	3,385	3,570	3,830
	Less transfers and condem'd books	596	352	231	2,115	1,361	1,021	1,480	2,586	1,813	1,701
	Net gain . . .	1,407	2,117	1,186	665	1,253	778	15 (loss)†	799	1,757	2,129
Newspaper Room.	Gain in books .	. . .	. . .	. . .	. . .	. . .	254	101	402	335	157
	Less loss . . .	. . .	. . .	. . .	. . .	. . .	. . .	. . . .	. . .	. . .	. . .
	Net gain . . .	. . .	. . .	. . .	. . .	. . .	254	101	402	335	157
Duplicate Room.	Gain by addition	. . .	. . .	. . .	. . .	. . .	1,375	1,641	1,234	1,902	1,015
	Less loss by exchanges, etc.	. . .	. . .	. . .	. . .	. . .	506	334	786	519	351
	Net gain . . .	659	301	139	149	360	869	1,307	448	1,383	664
E. Boston Branch.	Gain in books .	. . .	. . .	. . .	5,936	881	621	664	915	917	856
	Condemned and lost	. . .	. . .	. . .	. . .	50	97	143	334	273	250
	Net gain . . .	. . .	. . .	. . .	5,936	831	524	521	581	644	606
S. Boston Branch.	Gain in books .	. . .	. . .	. . .	. . .	. . .	885	850	1,359	1,261	1,303
	Condemned and lost	. . .	. . .	. . .	. . .	. . .	76	217	644	495	413
	Net gain . . .	. . .	. . .	. . .	. . .	4,365	809	633	715	766	890

*Includes 12,057 (close estimate) of the Barton books, and 187 other volumes.

† The condemnations have been large for the year, the transfers few; but their combined excess over the gains, which are exceptionally small on account of the few books published in this country, shows, for the first time, an absolute loss for the year.

APPENDIX VI.— *Continued.*

		1868	1869	1870	1871	1872	1873	1874	1875	1876	1877
Rox. Branch.	Gain in city part	. . .	. . .	. . .	. . .	. . .	3,754	1,069	1,296	1,299	1,396
	Condemned and lost	. . .	. . .	. . .	. . .	. . .	4	26	46	163	304
	Net gain . . .	. . .	. . .	. . .	. . .	. . .	3,750	1,043	1,250	1,136	1,092
	Fellowes Athenæum. (Net gain)	. . .	. . .	. . .	. . .	. . .	865	1,330	572	759	738
	Total gain . .	. . .	. . .	. . .	. . .	. . .	4,615	2,373	1,822	1,895	1,830
Chn. Branch.	Gain in books .	. . .	. . .	. . .	. . .	. . .	. . .	15,932	1,305	1,004	1,123
	Condemned and lost	. . .	. . .	. . .	. . .	. . .	. . .	144	403	300	433
	Net gain . .	. . .	. . .	. . .	. . .	. . .	. . .	15,788	902	704	690
Bri. Branch.	Gain in books .	. . .	. . .	. . .	. . .	. . .	. . .	11,049	480	599	480
	Condemned and lost	. . .	. . .	. . .	. . .	. . .	. . .	12	75	130	74
	Net gain . .	. . .	. . .	. . .	. . .	. . .	. . .	11,037	405	469	406
Dor. Branch.	Gain in books .	. . .	. . .	. . .	. . .	. . .	. . .	. . . .	3,905	3,179	1,057
	Condemned and lost	. . .	. . .	. . .	. . .	. . .	. . .	. . . .	. . .	32	16
	Net gain . .	. . .	. . .	. . .	. . .	. . .	. . .	54	3,905	3,147	1,041
J. Plain Branch.	Duplicates reserved for this Branch . . .	. . .	. . .	. . .	. . .	. . .	. . .	24	19	39	139
Total Increase.	Bates Hall gain	5,946	6,290	6,450	11,349	6,899	6,795	19,271	6,374	9,816	8,422
	Lower Hall gain	1,407	2,117	1,186	665	1,253	778	(loss) 15	799	1,757	2,129
	Newspaper Room gain .	. . .	. . .	. . .	. . .	. . .	254	101	402	335	157
	Duplicate Room gain	659	301	139	149	360	869	1,307	448	1,383	664
	E. B. Branch gain	. . .	. . .	. . .	5,936	831	524	521	581	644	606
	S. B. Branch gain	. . .	. . .	. . .	. . .	4,365	809	633	715	766	890
	Rox. Branch gain	. . .	. . .	. . .	. . .	. . .	3,750	1,043	1,250	1,136	1,092
	Fellowes Athenæum gain .	. . .	. . .	. . .	. . .	. . .	865	1,330	572	759	738
	Chn. Branch gain	. . .	. . .	. . .	. . .	. . .	. . .	15,788	902	704	690
	Bri. Branch gain	. . .	. . .	. . .	. . .	. . .	. . .	11,037	405	469	406
	Dor. Branch gain	. . .	. . .	. . .	. . .	. . .	. . .	54	3,905	3,147	1,041
	J. P. Branch gain	. . .	. . .	. . .	. . .	. . .	. . .	24	19	39	139
	Total gain . .	8,012	8,708	7,775	18,099	13,708	14,644	51,094	16,372	20,955	16,974

APPENDIX VII.

INCREASE FROM NEWLY PUBLISHED BOOKS. [P.]

	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877
English Books with British imprint	635	708	625	811	899	1,096	1,389	1,294	1,533	2,830	2,237
English Books with American imprint	1,154	1,445	1,455	1,411	2,206	3,642	4,301	3,807	7,365	10,501	6,761
English Books with Continental imprint	104	100	80	50	48	115	291	125	375	316	180
Foreign books	539	673	789	487	561	891	1,064	858	767	1,858	1,742
Duplicates of either class, when not included in the other items	97	. .	447	248	480	. .	. .	. .	. . .	. . .	. . .
Total	2,529	2,926	3,396	3,007	4,194	5,744	7,045	6,084	10,040	15,505	10,920

APPENDIX VIII.

VOLUMES LOCATED IN BATES HALL, BY MONTHS. [G.]

MONTHS.	1868-69	1869-70	1870-71	1871-72	1872-73	1873-74	1874-75	1875-76	1876-77
May	758	. . .	727	455	584	357	383	830	671
June	509	. . .	480	464	584	527	477	845	613
July	1,037	. . .	462	291	631	839	713	829	733
August	383	347	520	518	554	405	560	566	591
September	713	833	378	511	457	436	622	1,036	611
October	866	697	546	295	520	414	590	602	751
November	443	763	695	*4,528	489	377	722	925	697
December	639	632	905	651	646	507	758	567	772
January	626	834	427	611	658	665	427	579	1,014
February	563	633	706	724	456	594	349	645	677
March	521	382	1,001	788	551	472	419	752	649
April	417	1,175	661	†598	492	605	544	1,050	1,558
Total	7,475	6,296	7,508	10,384	6,622	6,198	6,564	9,226	9,337
Pamphlet volumes arranged by the Curator	. . .	. . .	. . .	385	554	206	159	317	29

* 3,876 are books of the Ticknor Library, then assigned to permanent places.
† Includes 31 vols. of the Ticknor MSS.

NOTE. — These monthly figures are the results of the tables made out year by year, like the one constituting Appendix VI for 1869. The figures for May, June, and July, 1868–69, should follow those for April of the same year. They were misplaced to adapt the table to a change of the Library year.

Pamphlets. — During the year the Curator of pamphlets has continued the arrangement of all the loose pamphlets by subjects, etc., in the Cabinet Room; and such as were duplicates and not needed have been arranged in adjacent apartments.

Special Libr							Losses from the opening of the hall, and deducted in next column.				
1858.	1861.	1866.	187								
Bowditch Library.	Parker Library.	Prince Library.	Ticknor Library.	Located 1875.	Located 1876.	May, 1877.	Missing.	Lost.	Delin-quent.	Total Loss.	Total May 1, 1877, including Special Libraries.
244	276	6	. .	13	16	1,286	5	. . .	. . .	5	1,883
32	596	3	25	178	179	5,002	3	. . .	1	4	6,588
16	650	54	3	240	285	5,486	9	6	3	18	6,334
96	711	680	22	,386	1,265	21,552	36	18	14	68	24,333
75	573	69	1	611	953	17,332	28	7	15	50	23,465
59	413	7	5	271	848	10,161	5	. . .	4	9	13,337
9	291	2	3	147	520	6,807	4	2	. . .	6	7,470
7	1,287	8	2	184	264	5,826	4	3	1	8	7,392
6	1,123	196	12	114	116	4,403	2	. . .	1	3	6,473
20	82	. . .	3,30	25	81	719	. . .	. . .	. . .	. . .	4,334
2	369	1	. .	148	289	4,389	5	2	. . .	7	4,979
928	708	5	14	222	769	14,576	7	3	2	12	16,832
144	3,242	874	36	684	797	14,602	6	7	3	16	19,467
5	1,247	49	11	397	368	5,974	7	4	1	12	7,532
3	307	13	5	115	190	3,382	4	. . .	. . .	4	3,789
65	98	. . .	2	148	88	1,745	2	. . .	1	3	1,945
3	66	22		570	400	9,690	11	2	6	19	9,810
14	124	. . .	3	223	182	6,057	2	5	. . .	7	6,316
854	90	20	6	263	355	7,034	10	5	4	19	8,107
4	9	. . .	2	174	273	3,728	5	3	3	11	3,771
. . .	29	1		215	379	4,746	12	2	9	23	4,845
6	. . .	. . .	. .	9	. . .	454	1	. . .	. . .	1	533
. . .	. . .	18	3	. .	9	. . . .	. . .	. . .	. . .	. . .	80
. . .	. . .	. . .	. .	. .	. . .	. . . .	. . .	. . .	. . .	. . .	2,761
2,592	12,291	2,028	4,92	,383	8,626	154,951	168	69	68	305	†192,326

Explanation. — Cl Arts, Agriculture, Domestic Arts, etc.
Travels, when embracing s may have been received from time to time, and are
Class IV includes No ed otherwise than by themselves.
Geography of, and Voya tion of the Barton Library, and not that of the General
American Literature is s
Class V, Class VI, Cl mselves, so that for purposes of enumeration or learning
IV has for America. Cl exact figures upon the subdivisions; as also upon such
vian nations. ming the results of the ranges devoted to them in the
Class XI includes Ru
Class XIV includes I is included in the figures for these libraries.
Education, Rhetoric, Log

ount.

APPENDIX IX.

BATES HALL CLASSIFICATIONS.

(Not including volumes added, but not yet located.)

Special Libraries. 1858. Bowditch Library.	1861. Parker Library.	1866. Prince Library.	1871. Ticknor Library.	1873. Barton Library.*	Patent Library.	Class No.	Classes.	General Libraries. Located 1867.	Located 1868.	Located 1869.	Located 1870.	Located 1871.	Located 1872.	Located 1873.	Located 1874.	Located 1875.	Located 1876.	May, 1877.	Losses from the opening of the hall, and deducted in next column. Missing.	Lost.	Delinquent.	Total Loss.	Total May 1, 1877, including Special Libraries.
244	276	6	...	21	...	I.	Cyclopædias, etc.	24	86	19	22	22	32	10	9	13	16	1,286	5	...	...	5	1,883
32	596	3	253	702	...	II.	Bibliography and Literary History	170	231	326	271	278	235	205	166	178	179	5,002	3	...	1	4	6,588
16	650	54	33	95	...	III.	General History, Biography, Travel, and Geography	170	140	184	157	223	284	199	210	240	285	5,486	9	6	3	18	6,334
96	711	680	223	872	199	IV.	American History, Geography, Biography, Travel, and Polite Literature	515	1,168	1,438	918	1,305	911	983	962	1,386	1,265	21,552	36	18	14	68	24,333
75	573	69	19	3,081	2,316	V.	English History, Geography, Biography, Travel, and Polite Literature	493	762	739	767	1,018	635	605	712	611	953	17,332	28	7	15	50	23,465
59	413	7	52	2,429	216	VI.	French History, Geography, Biography, Travel, and Polite Literature	188	335	413	207	263	443	530	433	271	848	10,161	5	...	4	9	13,337
9	291	2	30	331	...	VII.	Italian History, Geography, Biography, Travel, and Polite Literature	87	229	189	160	238	249	60	198	147	520	6,807	4	2	...	6	7,470
7	1,287	8	24	240	...	VIII.	Germanic History, Geography, Biography, Travel, and Polite Literature	228	159	266	222	250	250	260	210	184	264	5,826	4	3	1	8	7,392
6	1,123	196	126	619	...	IX.	Greek, Latin, and Philology	190	100	112	97	107	82	123	98	114	116	4,403	2	...	1	3	6,473
20	82	...	3,309	204	...	X.	Spanish and Portuguese History and Literature	...	...	...	...	...	27	47	57	25	81	719	...	...	...	...	4,334
2	369	1	...	218	...	XI.	Other History, Geography, Biography, Travel, and Literature	214	216	189	160	262	176	222	143	148	289	4,389	5	2	...	7	4,979
928	708	5	144	471	...	XII.	Periodicals and Transactions	314	341	507	445	560	397	394	208	222	769	14,576	7	3	2	12	16,832
144	3,242	874	367	238	...	XIII.	Theology, Ecclesiastical History, etc.	968	595	836	617	985	496	620	672	684	797	14,602	6	7	3	16	19,467
5	1,247	49	118	139	...	XIV.	Metaphysics and Social Science	185	343	429	444	378	263	324	290	397	368	5,974	7	4	1	12	7,532
3	307	13	55	29	...	XV.	Jurisprudence	145	161	111	112	114	106	115	109	115	190	3,382	4	...	...	4	3,789
65	98	...	20	17	...	XVI.	Political Economy	79	66	118	75	130	58	101	97	148	88	1,745	2	...	1	3	1,945
3	66	22	4	25	...	XVII.	Medical Science	370	556	706	515	365	669	747	499	570	400	9,690	11	2	6	19	9,810
14	124	...	31	90	...	XVIII.	Natural History and Science	155	170	172	212	191	331	289	188	223	182	6,057	2	5	...	7	6,316
854	90	20	61	48	...	XIX.	Mathematics and Physical Sciences	312	318	394	449	485	434	323	301	263	355	7,034	10	5	4	19	8,107
4	9	...	24	6	...	XX.	Useful Arts	96	116	119	102	76	181	256	265	174	273	3,728	5	3	3	11	3,771
...	29	1	4	65	...	XXI.	Fine Arts	197	205	193	338	253	215	201	162	215	379	4,746	12	2	9	23	4,845
6	...	...	...	73	...	XXII.	Bound Volumes of Miscellaneous Pamphlets	...	...	15	6	5	3	9	5	9	...	454	1	...	...	1	533
...	...	18	32	30	...	XXIII.	Bound Volumes of Manuscripts	...	...	...	...	...	...	49	1	...	9	...	...	...	...	...	80
...	...	...	...	2,761	...	XXIV.	Shakespeare	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2,761
2,592	12,291	2,028	4,929	12,804	2,731	....	Totals	5,100	6,297	7,475	6,296	7,508	6,477	6,622	5,995	6,383	8,626	154,951	168	69	68	305	†192,326

Explanation. — Class III includes General History, Universal Biographies, Histories of Eras, Voyages, and Travels, when embracing several countries, and collected works of historians.

Class IV includes North and South American history, Documents and Statistics, Biographies of Americans, Geography of, and Voyages and Travels in America, with the collected works of American writers, and what of American Literature is sometimes termed Polygraphy.

Class V, Class VI, Class VII, Class VIII. — These have the same scope for the respective countries that Class IV has for America. Class VIII includes also Belgium, the Netherlands, and Switzerland, as also the Scandinavian nations.

Class XI includes Russia, Greece, Turkey, with Asia, Africa, Australia, Polynesia, etc.

Class XIV includes Political Science, Social Science, and Ethics applied and unapplied, Intellectual Science, Education, Rhetoric, Logic, Phrenology, etc.

Class XIX includes Mechanics, Military and Naval Arts, Agriculture, Domestic Arts, etc.

Class XXII embraces all such pamphlet volumes as may have been received from time to time, and are generally too heterogeneous in their make-up to be classed otherwise than by themselves.

Class XXIV includes only the Shakespeare collection of the Barton Library, and not that of the General Library.

The subdivisions of classes are kept in ranges by themselves, so that for purposes of enumeration or learning percentage of use, it is practicable at any time to get exact figures upon the subdivisions; as also upon such points as Biography, Travel and Voyages, etc., by summing the results of the ranges devoted to them in the several alcoves.

Note. — The increase of the several special libraries is included in the figures for these libraries.

* Includes all books in the Room G, — 12,108 of them belonging to the Barton Library, as originally shelved there. † Actual count.

APPENDIX X.

LOWER HALL CLASSIFICATIONS. [G.]

CLASSES.	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877.				To be deducted.				Enumeration by Actual Count, 1877.				
	Total Aug. 1.	Total Aug. 1.	Total Aug. 1.	Total May 1.	Total May 1.	Total May 1.	Total May 1.	Total May 1.	Total May 1.	Total May 1.	New books added.	Duplicates added.	Condemned books replaced.	Total added. 1876–77.	Transferred to B. H.	Transferred to Branches.	Condemned.	Total May 1, 1877.	Total May 1.	Missing. (10 yrs.)	Lost. (10 yrs.)	Delinquent. (10 yrs.)	Total Loss. (10 yrs.)
Theology, Moral and Intellectual Science, etc	1,488	1,569	1,651	1,703	1,753	1,805	1,802	1,792	1,822	1,853	36	3	11	50	....	....	9	1,894	1,844	32	5	7	44
Jurisprudence and Political Science	270	276	280	283	269	275	285	294	301	322	1	3	....	4	....	....	1	325	328	9	1	6	16
Medicine, Mathematics, Physics or Natural Science	1,705	1,778	1,857	1,898	1,908	1,948	2,043	2,098	2,116	2,191	61	13	29	103	4	....	23	2,267	2,202	60	7	9	76
Useful and Fine Arts, Military and Naval Science	599	629	647	654	639	629	656	668	691	716	24	2	3	29	2	....	5	738	715	31	3	8	42
American History and Politics	1,023	1,059	1,082	1,089	1,086	1,070	1,077	1,070	1,072	1,112	18	20	15	53	2	1	15	1,147	1,129	36	4	7	47
Foreign History and Politics	1,333	1,374	1,387	1,401	1,363	1,359	1,354	1,362	1,380	1,392	42	5	11	58	4	12	9	1,425	1,477	36	2	10	48
Poetry, Drama, Oratory, Rhetoric	2,268	2,344	2,534	2,576	2,467	2,529	2,544	2,540	2,572	2,667	72	18	33	123	4	....	41	2,745	2,868	115	12	19	146
English Prose Fiction, including Juvenile Fiction, and other juvenile books	7,165	8,062	9,130	9,818	10,469	11,281	11,864	11,858	12,426	13,899	623	982	1,192	2,797	....	14	1,372	15,310	13,501	422	157	224	803
Biography	2,342	2,223	2,300	2,336	2,298	2,281	2,246	2,234	2,278	2,347	54	23	35	112	2	....	37	2,420	2,489	43	4	13	60
Travels	1,897	1,871	1,989	2,041	1,990	1,980	1,965	1,986	2,040	2,061	43	41	39	123	1	....	30	2,153	2,186	80	5	7	92
Libraries, Collections, Periodicals, etc.*	2,621	2,798	3,125	3,305	3,478	3,771	3,827	3,728	3,698	3,928	100	65	74	239	....	....	86	4,081	3,865	132	12	25	169
German Books	1,137	1,206	1,232	1,246	1,247	1,250	1,262	1,261	1,263	1,201	92	....	19	111	....	....	19	1,293	1,313	48	9	7	64
Italian Books	221	221	221	224	226	226	227	228	229	203	....	....	....	....	....	....	....	203	155	....	....	....	....
French Books	1,343	1,104	1,191	1,209	1,209	1,213	1,232	1,244	1,241	992	10	....	5	15	....	....	7	1,000	1,002	30	8	6	44
Spanish Books	....	....	....	....	1	1	1	1	1	1	1	....	....	1	....	....	....	2	2	....	....	....	....
Books of Reference	87	92	97	126	171	214	225	232	260	267	7	2	3	12	....	....	1	278	402	12	....	....	12
Totals	25,199	26,606	28,723	29,909	30,574	31,827	32,605	32,596	33,395	35,152	1,184	1,177	1,469	3,830	19	27	1,655	37,281	35,478	1,086	229	348	1,663

The extent of the Lower Hall library is given in the above table two ways; 1st, by the usual process of adding accessions and deducting condemned books and transfers; 2d, by an actual count, the only one made since 1867. The column "Missing" shows books which have not been accounted for year after year during these ten years, the most of which probably represent errors in the records of condemnation, transfers and issues to borrowers; the "Lost" column shows those lost by borrowers; and the "Delinquent" column represents those charged to borrowers and not recovered. The items of these three heads, amounting to 1,663 volumes, have never been subtracted from the total 37,281, as made up in the usual way; but if subtracted they show a total left of 35,618, or only 140 more than an actual count has revealed, — a discrepancy surprisingly small to extend over so many years. The actual figures (35,478) are used in Apppendixes I and IV.

* This class, embracing sets like Bohn's "Libraries," etc., includes many books, of course, which, in a minute classification, would have been divided among all the previous heads of this table.

NOTE. — The column of "Condemned books replaced" includes books condemned in previous years as well as in the current year. The column "Total added" shows the number of volumes as put upon the shelves, counting as one those bound two volumes in one, etc.

	To be deducted.				Enumeration by Actual Count, 1877.				
	Transferred to B. H.	Transferred to Branches.	Condemned.	Total May 1, 1877.	Total May 1.	Missing. (10 yrs.)	Lost. (10 yrs.)	Delinquent. (10 yrs.)	Total Loss. (10 yrs.)
)	. . . .	. . . .	9	1,894	1,844	32	5	7	44
4	. . . .	. . . .	1	325	328	9	1	6	16
3	4	. . . .	23	2,267	2,202	60	7	9	76
)	2	. . . .	5	738	715	31	3	8	42
3	2	1	15	1,147	1,129	36	4	7	47
3	4	12	9	1,425	1,477	36	2	10	48
3	4	. . . .	41	2,745	2,868	115	12	19	146
7	. . . .	14	1,372	15,310	13,501	422	157	224	803
2	2	. . . .	37	2,420	2,489	43	4	13	60
3	1	. . . .	30	2,153	2,186	80	5	7	92
)	. . . .	. . . .	86	4,081	3,865	132	12	25	169
.	. . . .	. . . .	19	1,293	1,313	48	9	7	64
.	. . . .	. . . .	. . . .	203	155	. . . .	. . . .	. . . .	. . . .
5	. . . .	. . . .	7	1,000	1,002	30	8	6	44
.	. . . .	. . . .	. . . .	2	2	. . . .	. . . .	. . . .	. . . .
2	. . . .	. . . .	1	278	402	12	. . . .	. . . .	12
)	19	27	1,655	37,281	35,478	1,086	229	348	1,663

raries," etc., includes many books, of course, which, in a minute classification,
of this table.

eplaced" includes books condemned in previous years as well as in the current
r of volumes as put upon the shelves, counting as one those bound two volumes

APPENDIX XI.

GIFTS MAY 1, 1876, TO APRIL 30, 1877. [P.]

Givers (excluding anonymous)	1,125
Volumes	3,562
Pamphlets	11,071

A gift of $500 has been made by J. Ingersoll Bowditch, Esq., for the purchase of books in pure mathematics, to be added to the Bowditch Library. The following table also shows another considerable gift in the Hunt Collection of books on the West Indies, etc., mentioned in the Report.

Note.—The income of the Library Funds is expended for books, which are credited yearly to the respective founders. See APPENDIX XXIII.

GIVERS.	Vols.	Pphs.
Abbot, Francis E.	1	
Abbott, Edward, *Cambridge*	1	
Academy of Natural Sciences, *Philadelphia*		2
Adams, *Hon.* Charles F.	2	
Adams, *Prof.* Charles K., *Ann Arbor, Mich.*		2
Adler, *Miss* Johanna	4	
Adrian College, *Adrian, Mich.*		1
Akins, Thomas B., *Halifax, N. S.*	8	15
Alabama Insane Hospital, *Tuscaloosa*		8
Albany Hospital, *Albany, N. Y.*		1
Albany Law School, *Albany, N. Y.*		1
Albion College, *Albion, Mich.*		7
Alger, Arthur M.	1	
Alger, *Rev.* William R., *New York*	1	
Allen, J. H.		1
Allen, Robert D., *Farmdale, Ky.*	1	
Allen, Zachariah, *LL.D., Providence, R. I.*	1	
Allgemeine Deutsche Unterstützungs-Gesellschaft, *San Francisco, Cal.*		12
American Academy of Arts and Sciences	1	
American Antiquarian Society, *Worcester*	2	
American Association for the Advancement of Science, *Salem*	1	
American Asylum for the Deaf and Dumb, *Hartford, Conn.*		1
American Bible Society. *New York City*	2	
American Bridge Company, *Chicago, Ill.*	1	
American Church Missionary Society		1
American Geographical Society, *New York City*	1	10

GIVERS.	Vols.	Pphs.
American Institute of Mining Engineers, *Easton, Pa.*	3	
American Pharmaceutical Association, *Philadelphia*	1	
American Philosophical Society, *Philadelphia*	1	
American Printing House for the Blind, *Louisville, Ky.*		1
American Ship Windlass Company, *Providence, R. I.*	1	
American Society of Civil Engineers, *New York City*		1
American Unitarian Association		4
American Veterinary Hospital, *New York City*		2
Andover Theological Seminary	1	1
Andrews, H. A. & Co., *Chicago, Ill.*	1	
Andrews, Sidney	1	
Anonymous, 17 broadsides, 63 newspapers	44	121
Ansonia Brass and Copper Company, *New York City*	1	
Appleton, *Mrs.* Charles T.	57	
Appleton, Nathan, 10 broadsides	6	32
Apprentices' Library, *New York City*		1
Apprentices' Library Company, *Philadelphia*		2
Arbey, Ferdinand, *Paris, France*	1	
Argentine Centennial Commissioners	1	
Arkansas Institute for the Education of the Blind, *Little Rock*		2
Astor Library, *New York City*		2
Asylum at Walnut Hill, *Hartford, Conn.*		1
Atkinson, Edward		1
Atlantic and St. Lawrence Railroad Company		4
Attwood, Cornelius S.	1	
Attwood, Gilbert & Co.		2
Australian Centennial Commissioners	1	
Austrian Centennial Commissioners	1	
Authors' Publishing Company, *New York City*		2
Babcock, Prof. James F.		1
Bache, Thomas H., *Philadelphia*	1	
Bache, William, *Bristol, Pa.*	1	
Bacon, *Mrs.* William	2	
Bailey, Albion H., *Somerville*		1
Baker, Walter		1
Baker, William E. S., *Germantown, Pa.*	1	
Bakewell and Marthens, *Pittsburgh, Pa.*		1
Balch, Joseph W.	7	
Balch, Thomas		2
Baldridge, *Rev.* Samuel C., *Friendsville, Ind.*	1	
Baldwin, Charles C., *Cleveland, Ohio*	1	
Baldwin, O., *New York City*	1	
Baldwin Place Home for Little Wanderers		1
Baldwin University, *Berea, Ohio*		1
Balfour, David M.	3	
Barclay, James J., *Philadelphia*	3	27
Barlow, S. L. M., *New York City*	1	
Barnard, James M.	6	
Barnett, G. and H., *Philadelphia*	1	
Barrows, Henry D., *Los Angelos, Cal.*		11
Batchelder, Joseph A., *Middleton*		2
Bates College, *Lewiston, Me.*		11
Baxter, J. H., *M.D., Washington, D. C.*	4	
Bay State Iron Company, 31 maps, 6 newspapers	75	75
Belfield, Henry & Co., *Philadelphia*	1	
Belgian Centennial Commissioners	2	
Bell, A. Graham	1	

GIVERS.	Vols.	Pphs.
Bell, James B.		1
Bell, S. N., *Manchester, N. H.*		1
Beloit College, *Beloit, Wis.*		5
Bénard, *Prof.* Ch., *Paris, France*	1	
Benham, *Gen.* H. W.	1	
Bentel, Margedant & Co., *Hamilton, Ohio*	1	
Bergstrom, K. L.	50	23
Bethel College, *Russelville, Ky.*		1
Bigelow Free Public Library, *Clinton*	1	
Binney, Henry P.	9	
Birchmore, *Rev.* John W.	17	
Bishop, Robert R., *Newton*	2	
Bliss, Charles M., *Bennington, Vt.*	1	
Blood, *Hon.* Hiram A., *Fitchburg*	1	
Boardman, Samuel L., *Augusta, Me.*	3	
Boemler, Charles, *St. Louis, Mo.*	1	
Bolling, S. M., *Fairfield, Iowa*		3
Bolton, *Eng.*, Public Library and Museum		1
Bosson, George T.		8
Boston, City of	156	4
——— City Missionary Society		1
——— College		6
——— Gas Light Company	4	
——— Medical Library Association	4	
——— Merchants' Association		1
——— Museum of Fine Arts		2
——— Safe Deposit and Trust Company, 1 map	1	
——— Society for Medical Improvement	1	
——— Society for Medical Observation	30	
——— Society of Medical Sciences		1
——— Society of Natural History	1	
——— University		1
Boude, Frédéric, *Marseilles, France*	1	
Boutwell, *Hon.* George S.	9	
Bowditch, Henry I., *M. D.*		8
Bowdoin College, *Brunswick, Me.*		1
Bowron, William M., *Philadelphia*	1	
Bradford, Charles F.	1	
Bradford, Duncan	2	
Bradford, Gamaliel, *Grantville*		12
Bradlee, *Rev.* Caleb D., 29 broadsides, 225 newspapers	16	152
Bradley, S. Messenger, *M.D., Manchester, Eng.*	2	4
Brainard, Erastus, 9 broadsides, 3 maps	25	392
Brazilian Centennial Commissioners	3	
Brewer, *Mrs.* Gardner, 10 maps, 1 newspaper	3	370
Brewer, Thomas M., *M.D.*	27	5
Bridgeman, Alfred, *New York City*		2
Brigham, *Rev.* Charles H., *Ann Arbor, Mich.*	1	
Brighton, *Eng.*, Free Library, Museum, and Picture Gallery		1
British Centennial Commissioners	1	
British Museum, *London*	11	
Britten, *Mrs.* E. H.	2	
Brock, R. A., *Richmond, Va.*, 1 newspaper		1
Brookline Public Library		1
——— Thursday Club	1	
Brooklyn, N. Y., Collegiate and Polytechnic Institute		1
——— Daily Argus Publishing Company	2	

GIVERS.	Vols.	Pphs.
Brooklyn Eye and Ear Hospital		3
——— Homœopathic Hospital		3
Brooks, Alfred A.	2	1
Brooks, W. G.		20
Brooks, *Rev.* William H., *Hanover*		1
Broughton, *Hon.* John H., *Portsmouth, N. H.*		1
Brown, Francis H., *M.D.*	1	
Brown, George P., *Indianapolis, Ind.*	1	
Brown, John C. J.	1	
Brown, *Mrs.* John Carter, *Providence, R. I.*	4	
Brown, O. Phelps, *Jersey City, N. J.*	1	
Brown, Samuel W., *Providence, R. I.*		1
Brown University, *Providence, R. I.*		1
Browne, J. W., *Carlville, Ill.*	1	
Buchanan, Roberdeau, *Washington, D. C.*	2	
Buck, James S., *Milwaukee, Wis.*	1	
Buenos Aires Centennial Commissioners	1	
Buff and Berger		1
Buissor, Fr., *Paris, France*	1	
Bullard, *Gen.* Edward F., *Saratoga Springs, N. Y.*		1
Bullock, *Hon.* Alexander H.		1
Burdge, Franklin, *New York City*	1	
Burger, J. C., *M.D., Pittsburg, Pa.*		8
Burlington College, *Burlington, N. J.*		8
Burlington University, *Burlington, Iowa*		1
Burnham, Arthur		88
Burr, George, *M.D., Binghamton, N. Y.*	1	
Burrall, F. A., *M.D., New York City.*		1
Burroughs, *Rev.* Henry	1	
Bush, Charles V.	3	
Butler, George B., *New York City*	1	
Butler, James D., *Madison, Wis.*	1	
Butler Hospital for the Insane, *Providence, R. I.*		1
Cadwallader, Bassett, *Evansville, Ind.*	1	
California Pharmaceutical Society, *San Francisco*		2
Calvert, George H., *Newport, R. I.*	5	
Cambridge Dispensary		1
Campbell, *Col.* Joseph H.	1	
Canadian Centennial Commissioners	1	
Cane Hill College, *Boonsboro', Ark.*		1
Capital University, *Columbus, Ohio*		1
Carey, Henry C., *Philadelphia*	1	3
Carleton College, *Northfield, Minn.*		6
Carmil, O., *Gilly, Belgium*	1	
Carpenter, Harvey, 3 broadsides.		
Carret, *Mrs.* S. T.	1	
Cartée, Cornelius S., *M.D.*	1	
Carter, Samuel T., *Amherst*		2
Carthage College, *Carthage, Ill.*		1
Castellani, *Signor* A., *Rome, Italy*	1	
Caswell, Edward T., *M. D., Providence, R. I.*		1
Cecilian College, *Hardin County, Ky.*		2
Centennial Catalogue Company, *Philadelphia*	18	
Central College, *Fayette, Mo.*		1
Central Tennessee College, *Nashville*		4
Central University of Iowa, *Pella*		6
Centre College, *Danville, Ky.*		2
Cernuschi, Henri	1	

GIVERS.	Vols.	Pphs.
Chadwick, James R., *M.D.*		280
Chamberlain, *Hon.* Joshua L., *Brunswick, Me.*	1	
Chambers, George E., *Philadelphia*	1	
Chandler, Alfred D		2
Chandler, Horace P.	2	8
Chaney, *Rev.* George L.	1	
Channing Home, The		1
Chaplin, *Rev.* Jeremiah	20	5
Charity Hospital, *New Orleans, La.*		1
Chase, *Prof.* A. Fitzroy, *Readfield, Me.*		1
Chase, George B.	1	
Chase, William L.		2
Chicago, *Ill.*, Board of Trade	1	
——— Public Library	1	1
Child, *Prof.* Francis J., *Cambridge*, 2 broadsides	10	51
Children's Mission		1
Chilian Centennial Commissioners	1	
Christern, F. W., *New York City*	3	5
Cincinnati, *Ohio*, Board of Education	1	
——— Hospital		1
——— Public Library	4	1
——— Sanitarium		2
Clafflin University, *Orangeburg, N. Y.*		1
Clapp, W. W., 31 broadsides	40	682
Clark, Samuel, *Northborough*		1
Clarke, E. H., *M.D.*	1	
Clarke, Robert, & Co., *Cincinnati*, 2 portraits	6	2
Clarke Institution for Deaf-Mutes, *Northampton*		1
Cleveland, *Ohio*, Hospital for the Insane		1
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Paine, *Prof.* John K., *Cambridge*, 1 manuscript	1	
Paine, Nathaniel, *Worcester*	4	
Palatinate College, *Myerstown, Mo.*		4
Palestine Exploration Fund, *London*		11
Palestine Exploration Society, *New York City*		2
Park, John R., *M.D., Salt Lake City, Utah*		4
Parkhurst, Henry M., *New York City*	3	
Parrish, Clemmons, *Philadelphia*		1
Patterson, *Capt.* C. P., *Washington, D. C.*	7	
Peabody Institute, *Danvers*		8
Peabody Institute, *Peabody*		1
Pease, *Hon.* G. M., *San Francisco, Cal.*	1	
Penitent Females' Refuge		1
Pennsylvania Bible Society		1
——— Board of Public Charities	1	
——— College, *Gettysburg*		9
——— State Hospital for the Insane, *Warren*		1
——— Steel Company, *Philadelphia*	1	
Peoria, *Ill.*, Board of Trade		1
Perkins, A. M., and Sons, *London*	1	
Perkins, Charles C.	1	
Perkins, Thomas H., 3 broadsides.		
Perkins Institution		1
Perley, M. V. B., *Gloucester*	1	
Perry, Thomas S.,	6	
Perry, *Rt. Rev.* William S., *Davenport, Iowa*, 12 broadsides.		12
Peruvian Centennial Commissioners	1	
Pfaff, Augustus, *Philadelphia*		1
Philadelphia Bible Society		1
——— Board of Trade	1	
——— Directors of City Trusts		2
——— Dispensary		32
——— Orthopædic Hospital		7
Phillips' Exeter Academy, *Exeter, N. H.*		2
Pierce, *Hon.* Henry L., 5 broadsides	24	7
Pool, Calvin W., *Rockport*		1

GIVERS.	Vols.	Pphs.
Pool, Wellington, *Wenham*		2
Poole, W. F., *Chicago, Ill.*	1	1
Poore, Ben. Perley, *Washington, D.C.*		1
Porter, *Rev.* Noah, *D.D., New Haven, Conn.*		1
Portuguese Centennial Commissioners	2	
Preble, *Com.* George H.	1	
Presbyterian Hospital, *New York City*		8
Prescott, Jeremiah		1
Priest, John T.		2
Prince, *Hon.* Frederick O.	6	
Providence, *R. I.*, Athenæum		1
Pusey, Jones & Co., *Wilmington, Del.*	1	
Quebec Centennial Commissioners	1	
Queensland Centennial Commissioners	1	
Quincy, Edmund, *Dedham*		1
Quincy, *Miss* Eliza S., 1 engraving, Plates of Quincy's History of Boston	2	
Racine College, *Racine, Wis.*		1
Radford, Thomas, *M.D., Manchester, Eng.*	1	11
Rand, *Hon. Mr.*	15	7
Rand, George D., *Portland, Me.*		1
Randolph Macon College, *Ashland, Va.*		3
Ransome, Arthur, *M.D., Manchester, Eng.*		12
Raymond, *Prof.* R. W., *Easton, Pa.*	1	
Reale Instituto Lombardo, *Milan, Italy*	2	
Redwood Library, *Newport, R.I.*		1
Reed, J. Harris		1
Retreat for the Insane, *Hartford, Conn.*		20
Reuter, Henry H.	1	1
Rice, Isaac L., *New York City*	1	
Richards, Joseph L.	70	
Richardson, William L., *M.D.*	1	1
Richmond and Gordon, *Duke of*	1	
Richmond, *Va.*, City Almshouse		1
Ridgely, *Rev.* G. W., *Greensboro', Md.*	1	
Ridgeville College, *Ridgeville, Ind.*		1
Riley, *Prof.* Charles V., *St. Louis, Mo.*		1
Riley, Charles W., *Philadelphia*	1	
Ripon College, *Ripon, Wis.*		1
Ritter, *Miss* Fannie R.	1	
Roberts Brothers	2	
Roberts, D. Lloyd, *M.D., Manchester, Eng.*	1	1
Robins, Richard	12	
Robinson, H. H., *Columbus, Ohio*	2	
Robinson, J. C.		4
Rochester, *N. Y.*, City Hospital		1
Rochester, *N. Y.*, Theological Seminary		2
Rock-Hill College, *Ellicott City, Md.*		2
Rockwell, *Mrs.* Alfred P.	1	45
Rockwell, *Hon.* Julius, *Lenox*	1	
Rodgers, *Rear-Admiral* C. R. P., *Annapolis, Md.*	1	
Roelker, *Miss* M. D., *Cincinnati, Ohio*	1	
Rogers, Edward H., *Chelsea*		1
Rogers, John	9	
Rogers, John K.	1	
Rogers, *Prof.* William B.		1
Rolfe, William J., *Cambridge*	9	40
Roosevelt Hospital, *New York City*		1
Ross, James, *M.D., Manchester, Eng.*	1	1

GIVERS.	Vols.	Pphs.
Rowe, Walter R., *Lawrence*	1	
Rowell, George P., *New York City*	1	1
Rowell, W R.	1	
Royal Geographical Society, *London*	3	
Royal Historical Society, *London*	1	
Royal Society, *Edinburgh*	2	
Royal Society, *London*	1	
Ruger, J. W , & Co. *Buffalo, N. Y.*	1	
Russell, John A., *San Francisco, Cal.*	1	
Russell Library, *Middletown, Conn.*		1
S. R. Smith Infirmary, *Tompkinsville, N. Y.*		2
Sabin, Joseph, *New York City*	1	
St. Augustine College, *Benicia, Cal.*		1
St. Barnabas Hospital, *Poughkeepsie, N. Y.*		1
St. Bonaventure's College, *Allegany, N. Y.*		2
St. Charles College, *Grand Coteau, La.*		2
St. Elizabeth's Hospital and Home, *Utica, N. Y.*		1
St. Francis Hospital, *New York City*		1
St. Ignatius College, *Chicago, Ill.*		6
St. Ignatius College, *San Francisco, Cal.*		15
St. John's College, *Annapolis, Md.*		11
St. John's College, *Brooklyn, N. Y.*		5
St. John's College, *St. Joseph, Minn.*		1
St. John's Hospital, *Brooklyn, N. Y.*		1
St. John's Riverside Hospital, *Yonkers, N. Y.*		3
St. Johnsbury, *Vt.*, Athenæum	1	
St. Joseph's College, *Bardstown, Ky.*		1
St. Joseph's College, *Buffalo, N. Y.*		2
St. Joseph's Hospital, *Paterson, N.J.*		1
St. Lawrence University, *Canton, N. Y.*		3
St. Louis, *Mo.*, Lying-in Charity		5
——— Mercantile Library	1	3
——— Public School Library	1	1
——— University		1
St. Luke's Home for Convalescents		1
St. Luke's Hospital, *Detroit, Mich.*		2
St. Mary of the Pacific, *Benecia, Cal.*		1
St. Mary's College, *Marion County, Ky.*		1
St. Mary's College, *San Francisco, Cal.*		1
St. Mary's Hospital for Children, *New York City*		4
St. Mary's Hospital for Women, *Brooklyn, N. Y.*		3
St. Xavier College, *Cincinnati, Ohio*		20
Salado College, *Salado, Texas*		1
Salem Hospital		3
Salisbury, *Prof.* E. E., *New Haven, Conn.*	1	
Saltonstall, Leverett	25	17
Sandwich Island Centennial Commissioners	7	
Sanford, E. I., *New Haven, Conn.*		1
Santa Clara College, *Santa Clara, Cal.*		1
Savage, E. H., *Chief of Police*	1	1
Sawyer, *Hon.* Timothy T.	4	
Schouler, James	1	
Sclater, Philip L., *London*	1	
Scoville Manufacturing Company, *New York City*	1	
Scudder, Samuel H., *Cambridge*	7	
Searle, Frederick A., 188 broadsides.		
Seaverns, Joel, *M.D.*	70	348
Seeley, Montressor S., *Woburn*		1
Sellers, William & Co., *Philadelphia*	1	

GIVERS.	Vols.	Pphs.
Selwyn, *Hon.* Alfred R. C., *Montreal*	1	
Sewall, Samuel, *Burlington*		1
Shaler, *Prof.* N. S., *Cambridge*	1	
Sharpless and Watts, *Philadelphia*	2	
Shaw, John C., *St. Paul, Minn.*	1	
Sheffield, *Eng.*, Public Library		1
Shepard. *Rev.* Thomas, *D.D., Bristol, R. I.*	1	
Shepherd, Henry E., *Baltimore, Md.*	1	
Shepley, George F., *Portland, Me.*		1
Shinn, *Rev.* George W., *Newton*	2	
Shore, George A., *Dighton*		1
Shurtleff College, *Upper Alton, Ill.*		32
Sill, John M. B., *Detroit, Mich.*		1
Simonds, *Prof.* F. W., *Ithaca, N. Y.*		1
Simpson, John B.	1	
Sinnickson, Robert, *Trenton, N. J.*, 10 broadsides		
Slaughter, *Col.* W. B., *Middleton, Wis.*		1
Smith, Amos D., 3d		5
Smith, *Miss* E. L.	1	
Smith, F. Wayland, *Oneida, N. Y.*		19
Smith, James & Co., *Philadelphia*	1	
Smith, Oberlin, *Bridgeton, N. J.*		1
Smith, Samuel, *Worcester*	1	
Smithsonian Institution, *Washington, D. C.*	10	5
Sneaden, George L.		5
Snow, Edwin M., *Providence, R. I.*	1	2
Society for the Reformation of Juvenile Delinquents, *New York City*		6
Society of Arts, *London*	2	
Sohier, Edward D.	2	
Soldan, Louis, *St. Louis, Mo.*	1	1
Somerby, Charles P., *New York City*	1	1
Somes, John J., *Gloucester*	1	
Somerville Public Library		1
Sotheran, Henry, *London*	1	
South Australian Centennial Commissioners	1	
Southbridge Public Library	1	
South Carolina State Library	1	
South Shields, *Eng.*, Public Library		1
Sowles, *Hon.* Edward A., *Montpelier, Vt.*	1	
Spanish Centennial Commissioners	1	
Spelling Reform Association, *Fernwood, Pa.*	1	
Springfield City Library		2
——— Water Commissioners		2
Staples, S. C., *Worcester*		1
State Asylum for Insane Criminals, *Auburn, N. Y.*		10
State Asylum of California, *Stockton*		4
State Hospital for the Insane, *Danville, Ky.*		12
State Hospital for Women and Infants, *Philadelphia*		2
State Lunatic Asylum, *Utica, N. Y.*		27
State Lunatic Hospital, *Northampton*		1
State Lunatic Hospital of Pennyslvania, *Harrisburg*		30
Stephenson, Thomas, *New Bedford*		1
Stevens, B. F., *London*	1	
Stewart College, *Clarksville, Tenn.*		1
Stiles and Parker Press Company, *Middletown, Conn.*	1	
Stilwell and Bierce Manufacturing Company, *Dayton, Ohio.*	1	
Stockwell, Thomas B., *Providence, R. I.*	1	
Stone, *Gen.* Charles P., *Cairo, Egypt*, 1 map	3	

GIVERS.	Vols.	Pphs.
Stott, *Rev.* W. T., *Franklin, Ind.*		6
Strout, James C., *Washington, D. C.*	1	
Sumner, Charles A , *San Francisco, Cal.*		2
Sutherland, *Duke and Duchess of*	2	
Sutter, Carl	2	
Swedish Centennial Commissioners	1	
Swett, *Hon.* John, *San Francisco, Cal.*	1	
Syracuse University, *Syracuse, N. Y.*		1
Taft, *Rev.* S. H., *Humboldt, Iowa*		3
Talladega College, *Talladega, Ala.*		1
Tanaka, Fujimaro, *Tokio, Japan*	53	2
Tennessee Hospital for the Insane, *Nashville*		10
——— Medical Society, *Nashville*		2
Tenney, David B., *Haverhill*		2
Tenney, *Rev.* E. P., *Ashland*	1	
Terrell, *Gen.* W. H. H., *Indianapolis, Ind.*	1	
Texas German Land and Emigration Bureau, *St. Louis, Mo.*	1	
Texas Military Institute, *Austin*		1
Thomas, Flavel S , *M.D., Hanson*		1
Thompson, *Rev* Augustus C., *D.D.*	3	
Thorburn, J., *M.D., Manchester, Eng.*	1	5
Thornton, J. Wingate	3	
Thurston, *Prof.* Robert H., *Hoboken, N. J.*	1	
Tiele, *Dr.* P. A., *Leyden*	1	
Tileston, *Miss* Mary W.	1	
Tinkham, J. G., *Somerset*		1
Titus, Charles H.		2
Todd, *Prof.* D. P., *Washington, D.C.*	1	
Toner, Joseph M., *M.D., Washington, D.C.*	1	
Tongaloo University, *Tongaloo, Miss.*		3
Touzalin, A. E., *Lincoln, Neb.*	1	
Trinity College, *Hartford, Conn.*		1
Trinity College, *Trinity, N.C.*		1
Trowbridge, Thomas R., *New Haven, Conn.*	1	
True, Nathaniel T., *M.D., Bethel, Me.*	1	
Tucker, William W.	1	
Tudor, Frederic	68	
Tufts College, *Medford*		9
Turner, Alfred T.	7	
Turner, Joseph W.	2	
Turner Free Library, *Randolph*	2	
Tuttle, *Rev.* Joseph F., *D.D., Crawfordsville, Ind.*, 1 broadside, 1 newspaper	84	104
Tuttle and Bailey Manufacturing Company, *New York City.*	1	1
Twining, *Prof.* E. H., *Columbia, Mo.*		20
Tyler, A. W., *Baltimore, Md.*	2	1
Tyson, *Rev.* Ira C., *Bedford, N.H.*	1	
Union College, *Schenectady, N. Y.*		103
United States, Bureau of Education	15	
——— Bureau of Navigation	2	
——— Bureau of Statistics	1	2
——— Chief of Engineers	9	
——— Chief of Ordnance	1	
——— Department of Agriculture		1
——— Department of State	10	
——— Department of the Interior	48	6
——— Department of the Treasury	5	
——— Department of War	2	
——— Library of Congress	6	2

GIVERS.	Vols.	Pphs.
United States, Naval Observatory	2	
——— Patent Office	18	
——— Surgeon General's Office	1	6
Universalist Sabbath School Union		1
University of California, *Berkeley*		18
University of Chicago		4
University of Deseret, *Salt Lake City, Utah*	1	
University of Minnesota, *Minneapolis*		2
University of Missouri, *Columbia*		2
University of Nashville, *Tennesse*		7
University of Nebraska, *Lincoln*		16
University of Rochester		4
University of South Carolina		8
University of the City of New York		1
University of the South, *Sewanee, Tenn.*		8
University of Vermont, *Burlington*		5
University of Virginia, *Charlottesville*		6
University of Wisconsin, *Madison*		64
University of Wooster, *Wooster, Ohio*		7
Upham, William P., *Salem*	1	
Urbino, Sampson R.	1	
Ursinus College, *Freeland, Pa.*		2
Vance, Mitchell, *New York City*	1	
Vassar College, *Poughkeepsie, N.Y.*	1	5
Venezuela, Government of	33	
Vereeniging des Boekhandels in Nederland, *Amsterdam*	1	
Vermont Asylum for the Insane, *Brattleboro'*		15
Vibbert, *Rev.* George H., *Somerville*	1	4
Victoria Centennial Commissioners	7	
Viles, Daniel F., *Waltham*		2
Villanova College, *Delaware County, Pa.*		1
Vinton, Frederick, *Princeton, N.J.*	1	1
Waco University, *Waco, Texas*		1
Wales, George W.	1	
Walker, Joseph R., *Wilmington, Del.*, 1 newspaper	1	
Wallace, John W., *Philadelphia*	1	
Walsall, *Eng.*, Free Library		1
Walworth Manufacturing Company	1	
Ware, *Col.* Henry	1	
Ware, William, & Co.	2	5
Warren, *Hon.* William W.	8	2
Warren Institution for Savings	2	
Warriner, *Miss* E.	15	5
Warrington, *Eng.*, Museum	1	
Washburn, *Col.* John D., *Worcester*	1	
Washington University, *St. Louis, Mo.*		2
Washingtonian Home		1
Waterbury, *Rev.* J. H.	2	
Waterston, *Rev.* Robert C.	1	
Watertown Free Public Library		2
Watts, Albert		1
Wayland Library Committee		1
Wellman, *Rev.* Joshua W., *Malden*	1	4
Wells College, *Aurora, N.Y.*		1
Wesleyan University, *Middletown, Conn.*	1	2
West Chicago, *Ill.*, Central Free Dispensary		1
Western Lunatic Asylum, *Staunton, Pa.*		4
Western Pennsylvania Hospital for the Insane, *Dixmont*		1
Western Reserve College, *Hudson, Ohio*		4

GIVERS.	Vols.	Pphs.
Westfield College, *Westfield, Ill.*		1
Westminster College, *Fulton, Mo.*		1
Westminster College, *New Wilmington, Pa.*		2
West Virginia Hospital for the Insane, *Wheeling*		3
Wheelwright, H. C.		9
Wheildon, William W., *Concord*		1
Whitaker, Joseph, *London*	1	
White, Andrew D., *LL D., Ithaca, N. Y.*	1	
White, Charles B., *M.D., New Orleans, La.*	1	
White, Horace, *Chicago, Ill.*	1	
White, *Rev.* William O., *Keene, N.H.*		1
Whitehead, Walter, *M.D., Manchester, Eng.*		4
Whitehill, *Rev.* John, *Attleboro'*		1
Whitney, *Rev.* Frederick A.	2	
Whitney, *Mrs.* Frederick A.	2	
Whitney, James L., 4 broadsides, 2 newspapers	4	15
Whitney, *Prof.* Josiah D., *Cambridge*	2	12
Whitney, *Prof.* William D., *New Haven, Conn.*	1	1
Whittemore, T.		3
Wightman, William J., *Reading*		4
Wilder, *Hon.* Marshall P.	1	
Wiley William H., *Terre Haute, Ind.*	1	
Willard, J. A., *Mankato, Minn.*		1
Willard Asylum for the Insane, *Willard, N. Y.*		8
Willey, *Rev.* S. H., *Santa Cruz, Cal.*	1	
William Jewell College, *Liberty, Mo.*		1
Williams, A., & Co.	1	
Williams, James, *Columbus, Ohio*	1	
Williams College, *Williamstown*		6
Willoughby College, *Willoughby, Ohio*		1
Wilmington College, *Wilmington, Ohio*		1
Wilmington Institute, *Wilmington, Del.*		1
Wilson, J. Ormand. *Washington, D. C.*	1	
Winchester Home for Aged Women		2
Winthrop, *Hon.* Robert C., 9 newspapers	8	3
Wisconsin Institution for the Blind, *Janesville*		1
——— State Hospital for the Insane, *Mendota*		22
Wise, W. Lloyd, *London*	1	
Withington, Moses, *Brookline*		1
Woburn Public Library		1
Woman's Baptist Missionary Society		4
Woman's Hospital, *New York City*		1
Woman's Medical College, *Philadelphia*		2
Woodbridge, W. E., *M.D., Washington, D. C.*	1	
Woods, S A.		1
Woodworth, *Rev.* W. W., *Berlin, Conn.*	1	
Worcester County Free Institute, *Worcester*	1	
Worthington and Flanders	2	
Wyeth, James H , *Cambridge*	1	
Xavier Union, *New York City*		2
Yale College, *New Haven, Conn.*		4
Young, *Prof.* Edward J., *Cambridge*	1	
Young, James		277
Young Men's Benevolent Society		1
Young Men's Christian Association, *Worcester*		1
Young Men's Mercantile Library, *Cincinnati, Ohio*		1
Young Women's Christian Association		1

LIBRARY
UNIVERSITY OF ILLINOIS

APPENDIX XII.

CIRCULATION. [W.]

(Books issued.)

Year.	Number of whole days open.	Total Circulation.				Bates Hall.					Lower Hall.				
		Issues.	Daily average.	Largest No. in one day.	Date of last column.	Home issues.	Hall issues.	Total issues.	Daily average.	Largest daily use.	Home use. White slips. *n*.	Daily average.	Largest daily use.	Hall use. Green slips.	Total use.
a 1854	142	35,389	250	535	Sept. 16	.....	.....	.....	.....	.....	35,389	250	535	.....	.....
1855	286	81,281	281	606	Feb. 10	.....	.....	.....	.....	.....	81,281	284	606	.....	.....
1856	284	82,661	291	647	Feb. 23	.....	.....	.....	.....	.....	82,661	291	647	.....	.....
1857	288	89,423	310	730	Jan. 24	.....	.....	.....	.....	.....	89,423	310	730	.....	.....
b 1858	197	75,570	383	693	Feb. 27	.....	.....	.....	.....	.....	75,570	383	693	.....	.....
1859	254	149,468	588	1,335	Mar. 5	.....	.....	.....	.....	.....	149,468	588	1,335	.....	.....
1860	297	151,020	508	1,052	Feb. 4	.....	.....	.....	.....	.....	151,020	508	1,052	.....	.....
1861	274	160,877	587	1,303	Feb. 23	.....	.....	.....	.....	.....	160,877	587	1,303	.....	.....
1862	288	189,302	626	1,517	Mar. 1	7,400	10,263	17,663	61	.....	162,639	565	.....	.....	.....
c 1863	215	138,027	644	1,534	Feb. 7	5,222	7,124	12,346	57	.....	125,681	585	.....	.....	.....
1864	280	184,035	664	1,424	Feb. 27	7,468	11,057	18,525	66	.....	165,510	591	.....	.....	.....
1865	275	194,627	708	1,464	Nov. 19	10,371	13,090	23,461	85	.....	171,166	622	.....	.....	.....
1866	278	193,862	732	1,589	Feb. 10	*e* 9,763	10,438	20,201	73	.....	173,661	635	.....	.....	.....
1867	277	*m* 208,963	754	1,813	Feb. 23	13,696	11,553	25,249	92	.....	183,714	662	.....	.....	.....
1868	279	175,727	630	1,323	Feb. 1	17,020	16,854	33,874	121	332	141,853	508	1,050	.....	.....
d 1869	284	218,677	770	1,498	Feb. 20	23,203	19,702	42,905	151	307	175,772	619	1,239	.....	.....
f 1870	230	210,963	917	1,768	Feb. 19	25,996	21,601	47,597	207	441	161,631	703	1,385	1,735	163,366
1871	307	*h* 322,445	*g* 965	*g* 1,856	Jan. 28	31,080	34,225	65,205	212	457	227,579	741	1,413	3,531	231,110
1872	308	380,343	1,234	2,425	Mar. 16	23,159	27,092	50,251	163	286	248,629	805	1,472	6,217	254,246
1873	308	467,855	1,519	3,073	*p*	28,261	31,003	59,264	192	388	230,111	772	1,443	7,946	238,057
1874	308	625,442	2,031	5,124	.....	34,441	37,872	72,313	235	544	245,244	822	1,535	7,853	253,097
1875	306	758,417	2,581	6,074	.....	41,721	39,016	80,737	263	603	264,825	864	1,759	8,009	272,834
1876	306	947,621	3,097	8,035	.....	54,956	59,373	114,329	373	877	338,450	1,140	2,598	10,392	348,842
1877	306	1,140,572	3,727	8,348	.....	66,832	74,786	141,618	463	930	392,995	1,326	2,439	12,737	405,732

Year.	East Boston Branch.					South Boston Branch.					Roxbury Branch.				
	Home use.	Daily average.	Largest daily use.	Hall use.	Total use.	Home use.	Daily average.	Largest daily use.	Hall use.	Total use.	Home use.	Largest daily use.	Daily average.	Hall use.	Total.
a 1854	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1855	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1856	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1857	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b 1858	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1859	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1861	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1862	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
c 1863	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1864	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1865	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1866	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1867	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1868	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
d 1869	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
f 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1871	25,151	*i* 335	586	979	26,130	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1872	74,804	243	609	1,042	75,846	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1873	67,754	*o* 222	558	458	68,212	101,688	330	684	634	102,322	.....	.....	.....	.....	.....
1874	80,771	263	712	320	81,091	107,651	350	762	915	108,566	64,092	612	263	3,250	67,342
1875	85,134	277	789	414	85,548	111,677	364	860	848	112,525	87,079	686	285	2,460	89,539
1876	89,949	293	856	1,038	99,987	113,334	370	1,045	988	115,530	98,304	925	320	2,993	101,297
1877	101,022	335	902	1,605	102,627	131,969	430	1,075	3,210	135,179	140,059	1,190	477	6,770	146,829

Year.	Charlestown Branch.					Brighton Branch.					Dorchester Branch.				
	Home use.	Largest daily use.	Daily average.	Hall use.	Total.	Home use.	Largest daily use.	Daily average.	Hall use.	Total.	Home use.	Largest daily use.	Daily average.	Hall use.	Total.
a 1854	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1855	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1856	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1857	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b 1858	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1859	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1860	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1861	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1862	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
c 1863	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1864	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1865	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1866	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1867	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1868	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
d 1869	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
f 1870	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1871	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1872	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1873	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1874	32,023	734	327	1,368	33,391	9,642	225	88	.....	9,642	.....	.....	.....	.....	.....
1875	78,169	704	259	1,206	79,375	21,394	234	70	448	21,842	15,675	439	197	132	*q* 16,017
1876	84,631	830	279	1,184	85,815	23,531	314	81	1,274	24,805	63,357	552	206	899	56,016
1877	105,211	902	348	1,605	106,816	27,832	290	97	1,960	29,792	67,692	620	220	4,287	71,979

a Six months.
b Removal of the Library.
c Ten months.
d Eleven months (Library not closed for examination).
e New restrictions put upon costly books.

f Nine months.
g Central Library only.
h If the issues of East Boston be excluded, this footing would be 296,315; and if Hall issues be excluded, there will be a record of 293,710 volumes used at home.

i Open seventy-eight days.
m See report for 1868.
n Includes books borrowed and returned the same day, on white slips, as shown in Appendix XIII.

o The E. B. Branch was open only 307 days, owing to repairs on furnace.
p Includes the largest of each department on any day, without regard to its being the same day, as in previous entries under this head.
q The use of the Dorchester Branch is for a little over three months.

APPENDIX XIII.

REGISTRATION. [W.]

Class No.	NOTE. — The first registration, 1854–8, had 17,066 names; the second, 1859–67, had 52,829 names.		THIRD REGISTRATION.										
			1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	Totals.
I.	Applications.	*Central Library* . . .	12,057	6,490	6,577	7,096	6,688	6,670	8,016	7,885	8,443	7,706	77,628
		E. B. Branch	. . .	. . .	. . .	2,320	993	826	1,244	1,001	866	906	8,156
		S. B. Branch	. . .	. . .	. . .	. . .	232	3,094	1,666	1,560	1,255	1,198	9,005
		Rox. Branch	. . .	. . .	. . .	. . .	. . .	. . .	3,475	1,470	1,446	2,271	8,662
		Chn. Branch	Previous Registration assumed.						693	1,070	1,219	1,171	4,153
		Bri. Branch	Previous Registration assumed.						108	263	239	291	901
		Dor. Branch	. . .	. . .	. . .	. . .	. . .	. . .	. . .	1,349	1,077	544	2,970
		Total	12,057	6,490	6,577	9,416	7,913	10,590	15,202	14,598	14,545	14,087	111,475
II.	Applications sent to Police (for verification when needed).	*Central Library* . . .	2,810	3,462	1,904	3,040	2,876	3,419	3,642	3,906	3,940	4,340	33,339
		E. B. Branch	. . .	. . .	. . .	1,012	474	266	463	476	427	484	3,602
		S. B. Branch	. . .	. . .	. . .	. . .	. . .	645	515	340	489	297	2,286
		Rox. Branch	. . .	. . .	. . .	. . .	. . .	. . .	237	353	356	221	1,167
		Chn. Branch	. . .	. . .	. . .	. . .	. . .	. . .	11	8	2	2	23
		Bri. Branch	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .
		Dor. Branch	. . .	. . .	. . .	. . .	. . .	. . .	. . .	53	36	16	105
		Total	2,810	3,462	1,904	4,052	3,350	4,330	4,868	5,136	5,250	5,360	40,522

APPENDIX XIII. — *Continued.*

REGISTRATION.

Class No.	NOTE.—The first registration, 1854–8, had 17,066 names; the second, 1859–67, had 52,829 names.		THIRD REGISTRATION,										
			1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	Total.
III.	Cards refused (mostly for Non-residency or under age).	*Central Library* . . .	233	202	179	241	267	288	287	283	244	209	2,433
		E. B. Branch	. . .	. . .	. . .	80	28	10	12	15	18	22	185
		S. B. Branch	. . .	. . .	. . .	. . .	. . .	64	36	18	10	4	132
		Rox. Branch	. . .	. . .	. . .	. . .	. . .	. . .	89	51	25	8	173
		Chn. Branch	. . .	. . .	. . .	. . .	. . .	. . .	3	9	1	10	23
		Bri. Branch	. . .	. . .	. . .	. . .	. . .	. . .	3	. . .	. . .	. . .	3
		Dor. Branch	. . .	. . .	. . .	. . .	. . .	. . .	. . .	7	7	1	15
		Total	233	202	179	321	295	362	430	383	305	254	2,964
IV.	Cards not called for during the year.	*Central Library* . .	852	589	404	393	439	409	291	230	224	252	4,083
		E. B. Branch	. . .	. . .	. . .	117	151	93	90	84	34	26	595
		S. B. Branch	. . .	. . .	. . .	. . .	. . .	179	65	60	50	32	386
		Rox. Branch	. . .	. . .	. . .	. . .	. . .	. . .	17	102	63	76	258
		Chn. Branch	. . .	. . .	. . .	. . .	. . .	. . .	. . .	52	38	50	140
		Bri. Branch	. . .	. . .	. . .	. . .	. . .	. . .	1	. . .	. . .	. . .	1
		Dor. Branch	. . .	. . .	. . .	. . .	. . .	. . .	. . .	50	17	17	84
		Total	852	589	404	510	590	681	894	578	426	453	5,547

V.	Applications cancelled. (Six months on file, and one month longer after notice.)	*Central Library* . . .	. . .	. . .	. . .	1,215	264	196	245	335	244	288	2,787
		E. B. Branch	. . .	. . .	. . .	. . .	82	45	46	44	44	26	287
		S. B. Branch	. . .	. . .	. . .	. . .	. . .	82	106	68	59	42	357
		Rox. Branch	. . .	. . .	. . .	. . .	. . .	. . .	17	102	63	68	250
		Chn. Branch	. . .	. . .	. . .	. . .	. . .	. . .	. . .	52	38	56	146
		Bri. Branch	. . .	. . .	. . .	. . .	. . .	. . .	. . .	17	. . .	. . .	17
		Dor. Branch	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	26	13	39
		Total	. . .	. . .	. . .	1,215	346	323	414	618	474	493	3,883

During the past four years an attempt has been made to separate the slips of persons believed now to be using the Library, distinguishing them by the fact of their visiting the libraries during the year, and the result shows that about three quarters of the cards may be considered *alive*.

APPENDIX XIII.—*Concluded.*

MEMORANDA.

MEMORANDA.	1872	1873	1874	1875	1876	1877							
	TOTAL.	TOTAL.	TOTAL.	TOTAL.	TOTAL.	CENTRAL	E. B.	S. B.	ROX.	CHN.	BRI.	DOR.	TOTAL.
Largest weekly No. of applicants	202	435	630	672	509	238	36	54	78	51	13	20	490
Month of this last	Oct.	....	....	....	....	Oct.	Jan.	Feb.	Oct.	Jan.	Nov.	Jan.	....
Smallest weekly No. of applicants	56	77	123	106	99	74	2	7	19	5	....	4	111
Month of this last	May	....	....	....	....	July.	June.	June.	May.	June.	April.	June.	....
Weekly average	128	204	323	332	280	148	17	24	44	22	6	2	363
Largest daily number	39	113	169	169	145	54	12	15	20	18	6	9	134
Date of same	Feb. 28.	....	....	....	....	Nov. 4.	Oct.	Feb.	Oct. 7.	Jan. 17.	Several.	July 29.	....
Smallest daily number	2	3	6	3	2	2	1	1	1	....	....	....	5
Date of same	Sept. 18.	....	....	....	....	May 30.	Several.	Several.	May.	Several.	Several.	Many.	....
Cards reported lost	2,493	3,596	3,997	4,733	6,534	4,481	926	857	970*	449	43	349	8,075
Of these replaced	1,636	2,422	3,144	3,427	4,578	3,172	649	723	680	283	43	269	5,819
Cards detained for fines	273	924	959	1,791	1,946	1,685	495	726	538	188†	8	261	3,901
Cancellation warnings	327	404	479	729	637	374	36	60	76	56	....	13	515
Of these cards called for	63	45	172	397	183	86	10	18	8	6	....	....	108

* Of this number 386 were Central Library registrations.

† There is an accumulation of 173 cards detained for fine, April 30, which have been gathered since 1874.

APPENDIX XIV.

BOOKS RECOMMENDED, USE OF BRITISH PATENTS AND TOSTI ENGRAVINGS.

YEARS.	BOOKS RECOMMENDED. [P.]							USE OF PATENTS.		USE OF TOSTI ENGRAVINGS. [C.]				
	Total recommended.		Total.	Already in Library.		Received since.		Persons.	Hours' Use.	Citizens.		Strangers.		Total.
	Eng.	For.		Eng.	For.	Eng.	For.			Males.	Fe males.	Males.	Females.	
1865	58	. .	. . .	. . .	. .	. .	. .	182	243	. . .	. . . .	. . .	. . . .	. . .
1866	306	. .	. . .	. . .	. .	. .	. .	187	248	. . .	. . . .	. . .	. . . .	. . .
1867	546	. .	. . .	95	. .	260	. .	197	248	. . .	. . . .	. . .	. . . .	. . .
1868	1,120	. .	. . .	183	. .	423	. .	267	327	. . .	. . . .	. . .	. . . .	. . .
1869	1,178	. .	. . .	226	. .	535	. .	361	589	. . .	. . . .	. . .	. . . .	. . .
1870 (nine months)	1,231	. .	. . .	257	. .	448	. .	346	389	. . .	. . . .	. . .	. . . .	. . .
1871	1,665	. .	. . .	418	. .	549	. .	347	301	. . .	. . . .	. . .	. . . .	. . .
1872	*1,576	. .	. . .	334	. .	756	. .	642	815	. . .	. . . .	. . .	. . . .	812
1873	1,625	. .	. . .	339	. .	753	. .	973	1,801	119	221	142	160	642
1874	1,990	290	2,280	467	48	1,028	127	1,490	2,591	137	251	152	218	758
1875	1,968	326	2,294	419	61	945	96	1,765	2,707	. . .	. . . .	. . .	. . . .	. . .
1876	2,423	370	2,793	519	47	1,635	126	2,104	3,204	74	142	55	156	427
1877	2,055	384	2,387	501	87	1,282	109	*2,660	4,222	47	99	65	140	351

* Of this number 652 were non-residents. The largest number of persons consulting the patents in one day were 22, on the 16th of April.

NOTE. — Previous to 1865 the number of books recommended from 1854 varied from 18 to 221 annually, and the number for such years can be found in previous reports.

* The partial disuse of the Bates Hall, on account of the alterations going on, affected this number.

NOTE. — The column of "Received since" denotes those received of the "Total recommended," the same year. What may be in subsequent years received of such "Total recommended" does not appear in this table. For instance, of the 1,120 — (183 + 423) = 514 not received in 1868 of the total recommended that year, a large part has been since received.

Patents. — The American, French, and British Patents have now been placed in the new Patent Room, under charge of a Curator. The figures before 1874 in the table showed the use of the British Patents only.

Engravings. — The statistics refer only to the bound volumes, not to those framed and on the walls. The Curator shows them every day from 9 to 12.

APPENDIX XV.

BATES HALL READING. [H. W.]

Classification.	Percentage of Use.														
	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877
English History, Topography, Biography, Travel, and Polite Literature	17.5	16	13	18	20	17	17	17	17	12	19	16	15	15	13
American (North and South) History, Topography, Biography, Travel, and Polite Literature	6	8.5	10	8	12	12	12	12	13	10	12	11	11	12	10
French History, Topography, Biography, Travel, and Polite Literature	5	7.5	6	6	7	4	5	5	5	4	6	6	5	5	5
Germanic History, Topography, Biography, Travel, and Polite Literature	2.5	2	2.5	2	4	3	3	3	2	2	3	3	4	3	3
Italian History, Topography, Biography, Travel, and Polite Literature	4	2.5	2	3	3	2	2	2	2	1	1	2	2	2	2
Other History, Topography, Biography, Travel, and Polite Literature	3.5	3.5	2.5	4	4	5	5	3	3	3	4	3	4	4	3
General and Epochal History, Geography, Biography, etc.	4.5	4.25	3	3	3	3	3	2	2	1	2	2	2	3	2
Greek, Latin and Philology	3	3.5	3	3	3	2	2	2	2	2	3	4	4	3	4
Bibliography	2.5	3	3	3	1	2	1	1	1	1	1	1	1	1	1
Transactions	3	1.5	2.3	5	7	5	4	5	1	1	1	1	2	1	5
Periodicals	7	6	6	11	7	8	9	10	8	10	8	8	7	7	6
Fine Arts	9	12	16.5	8	5	8	8	8	9	11	10	11	11	10	9
Natural History and Science	4	4	4.6	3	3	4	3	4	4	5	3	4	3	3	3
Theology, Ecclesiastical History, Ethics, Education, etc.	11	11	8.5	4	4	8	9	8	11	14	10	11	11	10	10
Medicine	7	5	4.6	8	6	6	8	8	9	9	8	7	6	6	6
Law, Government, and Political Economy	1.5	2	2	2	2	2	2	2	2	3	2	2	2	3	8
Useful Arts, Mathematics, Physics, etc.	5.5	5.5	7.5	7	8	7	6	5	6	8	5	6	7	9	10
Miscellaneous Pamphlets, bound	2	.75	.75	2	1	2	1	3	3	3	2	2	3	3	5

NOTE. — In computing this percentage, the use of books in the Bowditch, Parker, Barton, and Prince Libraries — which are kept apart from the general classifications of the Library — is reckoned as near as possible and included in the usual divisions, as is indicated in the table. (See *Explanations* to Appendix IX.)

Class No.	Alcove		1874		1875		1876		1877	
		Per ent.	Loans returned.	Per cent.	Loans returned.	Per cent.	Loans returned.	Per eent.	Loans returned.	Per cent.
1	I, XI and rang 10 of X, XX .	6+	14,422	7	16,218	-7	20,065	7	23,318	7
2	II, XII	1	2,705	3	3,878	-4	5,467	4	5,644	3
3	IX, XIX . . .		2,834		3,983		4,879		5,820	
4	III, XIII . . .	7	8,636	4	9,704	4+	11,618	4	12,677	4
5	IV, XIV . . .									
6	VII, XVII . .	74	158,453	71	163,657	69+	209,070	70	253,964	71
7	V, XV	1	5,027	3	7,415	3+	9,710	3	11,229	3
8	VI, XVI . . .	1	6,290	3	8,649	4+	10,227	3	10,419	3
9	VIII, XVIII .	8	15,563	7	15,106	6+	17,827	6	20,404	6
10	X, XX, except 8, 9, 10 . . .	2	6,388	3	7,394	3	9,123	3	11,845	3
		. .	221,418	. . .	236,004	. . .	297,986	. . .	355,320	. . .

same day.

APPENDIX XVI.

LOWER HALL READING.—(A. P. C.)

Shown from slips of books returned.

Class No.	Alcoves.	Classes.	1868		1869		1870 (Nine months.)		1871		1872		1873		1874		1875		1876		1877	
			Loans returned.	Per cent.	Loans returned.	Per cent.	Loans returned.	Per cent.	Loans returned.	Per cent.	Loans returned.	Per cent.	Loans returned.	Per cent.	Loans returned.	Per cent.	Loans returned.	Per cent.	Loans returned.	Per cent.	Loans returned.	Per cent.
1	I, XI and ranges 8, 9, 10 of X, XX	Sciences, Arts, Professions . .	10,522	7.4	11,436	6.97	7,607	4.9	12,662	5.7	15,996	6	12,757	6+	14,422	7	16,218	-7	20,065	7	23,318	7
2	II, XII	American History and Politics	2,533	1.8	2,682	1.63	2,071	1.4	2,270	1	2,096	-1	1,496	1	2,705	3	3,878	-4	5,467	4	5,644	3
3	IX, XIX	Foreign History and Politics .	3,030	2.1	3,221	1.96	2,386	1.5	2,702	1.2	2,715	1+	1,863		2,834		3,983		4,879		5,820	
4	III, XIII	Poetry, Drama, Rhetoric, Miscellaneous Essays, etc. . . .	3,692	2.6	2,461	1.5	2,441	1.5	5,954	2.7	8,019	4	7,651	7	8,636	4	9,704	4+	11,618	4	12,677	4
5	IV, XIV	Prose Fiction for adults and youths	105,227	74.2	125,273	76.36	120,355	78.4	167,604	77.2	173,438	76	154,835	74	158,453	71	163,657	69+	209,070	70	253,964	71
6	VII, XVII																					
7	V, XV	Biography	3,641	2.6	4,570	2.78	4,025	2.7	5,108	2.2	4,106	2	2,641	1	5,027	3	7,415	3+	9,710	3	11,229	3
8	VI, XVI	Travels, Voyages, etc.	3,289	2.3	5,363	3.26	5,154	3.4	6,062	2.8	4,998	3	3,631	1	6,290	3	8,649	4+	10,227	3	10,419	3
9	VIII, XVIII	Collections, Periodicals, etc. .	5,941	4.2	4,550	2.77	5,747	3.8	11,530	5.2	14,815	6	17,167	8	15,563	7	15,106	6+	17,827	6	20,404	6
10	X, XX, except ranges 8, 9, 10	French, German, and Italian Books	3,978	2.8	4,482	2.73	3,637	2.4	4,451	2	2,691	1+	5,341	2	6,388	3	7,394	3	9,123	3	11,845	3
		Totals	141,853	. . .	164,038	. . .	153,423	. . .	216,696	. . .	228,864	. . .	207,382	. . .	221,418	. . .	236,004	. . .	297,986	. . .	355,320	. . .

NOTE. — The columns of "Loans returned" do not include the books taken and returned the same day.

APPENDIX XVII.

EAST BOSTON BRANCH READING.

Shown from slips of Books returned.

Class No.	Ranges.	Classes.	1872 (3 mos.)		1872		1873		1874		1875		1876		1877	
			Books returned.	Percentage.	Books returned.	Percentage.	Books returned.	Percentage.	Books returned.	Percentage.	Books returned.	Percentage.	Books returned.	Percentage.	Books returned.	Percentage.
I.	10, 11, 12, 19, 21	Biography	669	3	1,104	1	729	1	1,216	1+	1,145	1+	1,381	2	1,330	1
II.	4, 33	Collections, Libraries, etc. . .	552	2	1,002	1	632	1	801	1	819	-1	984	1	727	1
III.	24, 26, 28, 29, 30, 32, 34	Fiction in Prose	8,593	36	31,937	43	30,373	45	37,350	46	42,460	49+	44,513	49+	53,678	53
IV.	27	Foreign Books	27	-1	57	. .	62	. .	43	. .	25	. .	25	. .	71	. .
V.	13, 14, 18, 35	History	1,096	5	1,819	2	1,197	2	1,679	2+	1,830	2+	2,142	2+	2,261	2
VI.	1, 2	Juvenile Books	6,639	28	25,855	35	25,411	37	26,786	33	27,077	31½	28,085	31+	29,985	30
VII.	15, 20	Miscellaneous	747	3	1,256	2	798	1+	1,317	1+	1,292	1½	1,507	2	1,543	2
VIII.	5, 6, 7, 17, 37, 39, 40, 41, 43	Periodicals *(bound)*	1,119	5	4,009	6	3,914	6	4,786	-6	4,495	5+	4,854	6+	5,286	5
IX.	16, 22	Poetry and Drama	2,071	9	2,447	4	1,131	-2	2,206	2+	2,047	2+	2,689	3+	2,572	2
X.	3, 36, 38	Sciences, Arts, Professions . .	883	3	2,057	3	1,527	2	1,997	2	1,954	2+	2,070	2+	2,161	2
XI.	8, 9, 23	Travels, Voyages	1,179	5	2,296	3	1,863	3	2,241	-3	1,957	2+	2,021	2+	1,823	2
XII.	25	Patent Office Reports	. . . .	. .	. . . .	. .	. . . .	. .	1	. .	. . . .	. .	. . . .	. .	. . . .	. .
		Totals	23,575	. .	73,839	. .	67,637	. .	80,423	. .	85,101	. .	90,181	. .	101,438	. .

NOTE.—The classification in this Branch is somewhat different from that of the Lower Hall of the Central Library, where juvenile books are scattered among the other classes, as the character of the book, whether fiction, history, biography, etc., would require.

APPENDIX XVIII.

SOUTH BOSTON BRANCH READING.

(Shown from slips of books returned.)

Class No.	Ranges.	Classes.	1873		1874		1875		1876		1877	
			Books returned.	Percentage.	Books returned.	Percentage.	Books returned.	Percentage.	Books returned.	Percentage.	Books returned.	Percentage.
I.	15, 16, 37, 38	American History and Biography	2,604	-3	2,974	-3	3,188	-3	3,885	3+	4,050	-3
II.	5, 6, 7, 8	Foreign History and Biography	1,867	2	2,242	2+	2,569	2+	2,423	2+	3,172	2+
III.	33, 34, 36	Travels, Voyages	3,054	3+	3,302	3+	3,937	-4	3,991	3+	4,460	3+
IV.	18, 28, 29	Professions	349	-1	436	-1	435	-1	530	-1	566	-1
V.	25	Poetry and Drama	1,909	2	2,092	2+	1,989	1+	2,061	-2	2,129	-2
VI.	31, 32, 39	Arts and Sciences	3,373	3+	3,454	3+	3,574	3+	3,188	-3	3,720	-3
VII.	3, 4, 17, 20, 27, 30, 35	Miscellanies, Collections, etc.	3,162	3+	3,480	3+	3,509	3+	3,287	-3	4,156	3+
VIII.	1, 2, 9, 19	Periodicals (*bound*)	4,140	4+	5,264	5+	4,388	-4	5,167	4+	5,497	4+
IX.	11, 12, 13, 14, 21, 22, 23, 24, 26, 27	Fiction and Juveniles	76,222	78	85,047	78+	88,532	-79	90,785	-79	107,398	79+
X.	10	Patents	26	-1	8	....	32	....	21	....	8	....
XI.	40	Foreign Languages	91		65	....	122	....	81	....	194	....
		Totals	96,797	....	108,364	....	112,275	....	115,419	....	135,350	....

APPENDIX XIX.

ROXBURY BRANCH AND FELLOWES ATHENÆUM READING.

NOTE.—The two sections of this table refer to two different collections of books.

Rox. Br. Class No.	RANGES.	CLASSES.	1874. Books returned.	1874. Percentage.	1875. Books returned.	1875. Percentage.	1876. Books returned.	1876. Percentage.	1877. Books returned.	1877. Percentage.
I.	1, 3, 5, 7, 23	Prose Fiction	28,575	-49	40,666	52	47,307	53	68,965	54
II.	2, 4 . . .	Travels	2,623	-5	2,555	3+	2,519	3	2,745	2
III.	6, 8 . . .	History	1,121	-2	1,133	1+	1,598	2	2,377	2
IV.	9, 11 . . .	Juveniles	19,261	32+	26,650	34	28,918	32	40,871	32
V.	10, 12 . .	Biography	1,351	2+	1,583	2	1,575	2	2,143	2
VI.	13, 14 . .	Periodicals	1,019	-2	1,338	-2	1,785	2	3,110	2+
VII.	15, 17 . .	Arts, Sciences, Professions	2,757	-4	2,815	4	2,992	3	3,858	3
VIII.	16	Poetry and Drama .	1,219	-2	1,235	2+	1,326	1	1,712	1+
IX.	18, 19 . .	Collected Works and Lit. Miscellanies .	724	-2	1,069	2+	887	1	1,815	-2
X.	20	Books in Foreign Languages	55		114	1+	119	1	190	
		Total	58,605	. . .	78,858	. . .	89,026	. . .	127,786	. .
F. A. Class No.										
I.	50, 54, 59 .	History, Biography, Travels	1,982	35	3,754	-43	3,548	38	5,335	33
II.	55, 57 . .	Modern Foreign Languages	729	13	1,073	12+	921	9	1,773	11
III.	51, 53, 65, 67	Periodicals	160	2	331	4	488	5	2,313	14
IV.	52, 56 . .	Miscellaneous Literature	661	12	921	10+	976	10	1,474	9
V.	58, 70 . .	Theology, Sociology, Ethics	412	7	550	6+	517	5	1,151	7
VI.	60	Medicine	46	1	81	1	126	1	249	1
VII.	61	Greek and Latin Languages and Literature	262	5	374	4+	376	4	687	4
VIII.	62	Fine Arts, Engineering	684	12	750	8½	932	10	1,243	7
IX.	63, 69 . .	Law, Politics, Government	36	1	149	-2	250	3	446	3
X.	64, 66, 68 .	Mathematics, Natural and Applied Science	719	12	846	-10	1,414	15	1,739	11
		Totals	5,691	. . .	8,829	. . .	9,548	. . .	16,410	. .

APPENDIX XX.

BRIGHTON BRANCH READING.

Class No.	Ranges.	Classes.	1874-5		1875-6		1876-7	
			Books returned.	Percentage.	Books returned.	Percentage.	Books returned.	Percentage.
I.	1, 2, 3, 4 .	Fiction	17,662	84	19,532	80	22,838	77
II.	5, 6, 7, 8 .	Biography, Travel, and History	1,424	7	1,677	7	2,451	8
III.	9 to 17 . .	Others	1,957	9	3,226	13	4,611	15
		Totals	21,043	. .	24,435	. .	29,900	. .

APPENDIX XXI.

DORCHESTER BRANCH READING.

Class No.	Ranges.	Classes.	1874-5		1875-6		1876-7	
			Books returned.	Percentage.	Books returned.	Percentage.	Books returned.	Percentage.
I.	1, 11, 21 .	Poetry, Drama	221	-1	927	1	1,021	-2
II.	2, 12 . . .	Travels	535	-4	2,233	4	2,133	3
III.	3, 13, 23 .	Fiction	3,983	47	21,880	55	26,107	57
IV.	4, 14, 24 .		2,877		13,701		14,059	
V.	5, 15, 25 .	Juveniles	5,348	-37	17,368	27	18,071	26
VI.	6, 16, 26 .	History	285	2	1,555	2	1,650	2+
VII.	7, 17, 27 .	Biography	414	-3	1,567	2	1,655	2+
VIII.	8, 18 . . .	Periodicals	162	1+	1,311	2	2,193	3
IX.	9, 19 . . .	Arts, Sciences, etc. . . .	465	3+	2,274	4	2,157	3
X.	10, 20, 28 .	Miscellanies, etc.	311	2+	1,671	3	1,459	2
		Totals	14,601	. .	64,487	. .	70,505	. .

CHARLESTOWN BRANCH READING.

NOTE.—No classification of the use is practicable, as the books are shelved without regard to classes. Tables similar to those of the other branches will be possible when a rearrangement of the books is made.

APPENDIX XXII.

PERIODICAL READING ROOM.

PERIODICALS.	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877							
											Central.	E. B.	S. B.	Rox.	Ch'n.	Bri.	Dor.	Total.
BY LANGUAGES.																		
English	141	175	208	220	315	333	374	547	609	579	315	35	51	62	71	19	36	589
French	39	46	49	47	48	52	54	57	66	50	57	. . .	. . .	7	. . .	. .	. .	64
German	27	31	35	34	36	38	41	43	49	45	41	. . .	2	2	. . .	. .	. .	45
Italian	1	2	2	3	3	3	3	3	4	3	3	. . .	. . .	. . .	. . .	. .	. .	3
Others	. . .	. . .	. . .	. . .	. . .	. . . .	*a* 2	. . . .	. . . .	*b* 1	*c* 2	. . .	. . .	. . .	. . .	. .	. .	2
Totals	208	254	294	304	402	426	474	650	728	678	418	35	53	71	71	19	36	703
Duplicates	. . .	. . .	. . .	. . .	72	80	92	94	103	120	91	. . .	8	2	2	. .	. .	103
Grand Totals	. . .	. . .	. . .	. . .	474	*506	566	744	831	798	509	35	61	73	73	19	36	806
STATISTICS OF USE.																		
Number of whole days open	289	300	†299	‡230	. . .	308	. . . .	. . . .	. . . .	358	360	336	359	360	324	. .	. .	. . .
Total readers	55,284	§76,892	§91,674	117,202	193,417	171,519	218,538	233,704	249,870	317,308	251,033	17,877	26,934	16,363	27,307	. .	. .	339,514
Daily average readers	191	256	306	510	675	557	678	706	698	830	694	58	75	45	85	. .	. .	957
Magazines read, total	81,783	88,034	136,122	142,962	269,150	254,159	288,462	329,524	348,772	400,452	307,130	29,978	39,807	22,507	25,242	. .	. .	424,664
Magazines read, daily average	283	293	455	622	992	825	897	964	973	1,118	853	97	110	63	78	. .	. .	1,201

APPENDIX XXII. — *Continued.*

PERIODICAL READING ROOM.

SUNDAY USE.

Reading Rooms.	No. of Magazines.				Sundays open.				Average issue per Sunday for the year.				Largest average issue per Sunday in any month.			
	1874	1875	1876	1877	1874	1875	1876	1877	1874	1875	1876	1877	1874	1875	1876	1877
Central	418	515	481	509	52	52	53	52	421	473	476	487	603, Jan.	646, Mar.	615, Dec.	626, Nov.
East Boston	41	47	47	35	52	52	53	30	141	113	121	105	241, Jan.	198, Feb.	192, Dec.	245, Nov.
South Boston	41	56	61	52	52	52	53	52	132	148	130	60	226, Nov.	310, Mar.	252, Dec.	110, Dec.
Roxbury	67	77	77	71	43	52	53	52	74	68	87	47	132, Feb.	97, Feb.	133, Mar.	83, Dec.
Charlestown	82	88	81	73	16	44	53	17	82	50	53	23	91, Feb.	78, Mar.	77, Jan.	33, May.
Brighton	23	23	19	19	17	51	...	...	...	...	...	...	...	...	...	...
Dorchester	...	25	32	36	...	...	...	...	...	...	...	...	...	...	...	...

a. Spanish and Portuguese.

b. Swedish.

c. Swedish and Hebrew.

* Transactions of learned societies and costly journals, kept in Bates Hall, are not included in this count, but they are all embraced — if currently received — in the Periodical List, issued by the Library.

† Eleven months and no vacation.

‡ Nine months.

§ This includes for 1869, 2,120, and for 1868, 2,013 non-resident readers; but now the distinction is not made.

NOTE. — The use of newspapers at the Charlestown Branch is not included, but the number of readers of them is. No statistics of use at Brighton and Dorchester are practicable under the present arrangements.

APPENDIX XXIII.

LOSSES, DELINQUENTS, ETC.

Class No.	Classes.	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876
		Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.	Total.
1	Books finable (*mail notices*)	15,652	11,911	13,124	11,920	18,700	21,868	27,191	31,953	36,309	40,513
2	Books returned after notice	14,203	11,479	12,613	11,419	17,856	20,872	25,746	30,149	34,095	38,422
3	Books sent for by messenger	1,449	432	511	501	844	993	1,445	1,759	2,214	2,091
4	Books recovered by messenger	. . .	403	491	475	805	956	1,377	1,680	2,129	1,991
5	Books not recovered	231	35	20	26	39	37	68	79	85	100
6	Books condemned	420	257	261	212	1,234	869	855	2,299	4,031	2,808
7	Books covered	. . .	35,241	23,826	34,639	54,184	81,805	106,557	152,102	219,631	249,946
8	Persons finable not paying messenger . . .	. . .	86	75	87	196	308	465	701	649	681
9	Residences changed without notice	. . .	58	92	57	116	. . .	345	129	693	479
10	Books sent to binderies	. . .	. . .	. . .	. . .	2,669	3,219	6,460	6,354	10,930	13,163

APPENDIX XXIII. — *Continued.*

LOSSES, DELINQUENTS, ETC.

Class No.	Classes.	1877								
		B. H.	L. H.	E. B.	S. B.	Rox.	Ch'n.	Bri.	Dor.	Totals.
1	Books finable (*mail notices*)	7,962	19,727	5,632	7,396	8,315	5,506	2,404	3,586	60,528
2	Books returned after notice	7,665	18,714	5,535	7,279	8,172	5,440	2,370	3,518	58,693
3	Books sent for by messenger	297	1,022	97	117	143	66	34	68	1,844
4	Books recovered by messenger	277	914	93	115	143	63	33	68	1,705
5	Books not recovered	16	*103	4	2	0	3	1	0	129
6	Books condemned	16	1,408	240	413	306	428	73	16	2,884
7	Books covered	. . . .	112,626	49,733	50,184	66,848	15,136	7,701	31,120	333,348
8	Persons finable not paying messenger . . .	81	455	61	99	97	59	4	26	882
9	Residences changed without notice	. . . .	364	82	31	18	82	5	2	584
10	Books sent to binderies	4,324	4,307	355	764	917	530	638	412	†12,684

1874-75. — Of 758,493 volumes delivered to borrowers, only one in 8,921 failed to be recovered.

1875-76. — Of 947,621 " " " 9,476 " "

1876-77. — Of 1,140,572 " " " 8,842 " "

* This includes 9 books unrecovered, taken out on green slips.

† Includes 437 vols. sent from the Reading Room.

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LIBRARY
UNIVERSITY OF ILLINOIS
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APPENDIX XXIV.

FINANCIAL STATEMENT. [N.]

General Library Account.	1870-71		1871-72		1872-73			1873-74			1874-75			1875-76			1876-77			Years.	Paid into City Treasury from fines and sales of Catalogues.
	City appropriations.	Expended.	City appropriations.	Expended.	City appropriations.	Expended.	Fellowes Athenæum.	City appropriations.	Expended.	Fellowes Athenæum.	City appropriations.	Expended.	Fellowes Athenæum.	City appropriations.	Expended.	Fellowes Athenæum.	City appropriations.	Expended.	Fellowes Athenæum.		
Binding	$4,400 00	$5,231 38	$5,200 00	$5,56[illegible] 12	$4,000 00†	$2,511 10	.....	$5,866 00	$5,883 63	.....	$6,500 00	$8,080 84	.....	$4,500 00	$5,137 14	.....	$5,000 00	$3,785 85	.....	1859	$437 80
Books	7,500 00	12,109 68	9,000 00	14,53[illegible] 60	9,000 00	12,677 89	$2,181 10	35,697 28	44,131 56	$1,652 22	15,000 00	16,962 45	$2,193 61	15,000 00	26,368 13	$1,547 18	10,000 00	21,714 50	$1,833 86	1860	450 00
Periodicals*		1,979 63		3,13[illegible] 08		1,845 84			2,679 57			5,395 16			3,945 44			2,849 88		1861	246 34
Catalogues (printing)	4,800 00	3,433 62	5,700 00	3,73[illegible] 85	5,500 00	3,963 16	.....	8,610 00	7,513 20	.....	6,000 00	3,361 57	.....	5,000 00	3,181 91	.....	5,000 00	5,722 87	.....	1862	350 00
Expense	1,600 00	1,678 90	2,000 00	2,48[illegible] 04	2,000 00	2,628 59	.....	4,305 00	3,141 01	.....	5,000 00	4,159 59	.....	4,000 00	2,499 76	.....	3,000 00	3,004 27	.....	1863	528 49
Fuel	1,300 00	1,083 80	1,650 00	1,59[illegible] 20	1,650 00	1,543 75	.....	2,580 00	2,720 50	.....	4,000 00	3,440 88	.....	4,500 00	2,971 87	.....	4,000 00	2,278 01	.....	1864	314 60
Furniture (cabinets, shelving, fixtures, etc.)	1,300 00	1,982 03	1,650 00	2,01[illegible] 83	1,500 00	1,662 90	.....	2,870 00	1,452 55	.....	13,500 00	10,256 55	.....	3,000 00	2,444 55	.....	2,000 00	2,528 31	.....	1865	385 64
Gas	1,700 00	2,041 76	2,200 00	2,30[illegible] 98	2,500 00	2,425 45	.....	5,022 00	3,460 06	.....	4,500 00	4,528 55	.....	5,000 00	5,550 50	.....	5,000 00	4,885 69	.....	1866	203 92
Printing (miscellaneous)	1,700 00	2,247 28	2,200 00	2,29[illegible] 14	4,000 00	4,217 59	.....	6,457 00	5,280 72	.....	6,000 00	4,687 57	.....	5,000 00	6,130 37	.....	5,500 00	5,894 26	.....	1867	504 18
Stationery	1,050 00	1,303 95	1,400 00	1,53[illegible] 44																1868	507 72
Salaries	30,000 00	29,074 00	35,000 00	34,50[illegible] 71	39,650 00	38,252 45	.....	50,000 00	48,782 76	.....	62,000 00	60,101 03	.....	69,500 00	67,651 92	.....	69,500 00	69,332 10	.....	1869	659 85
Transportation, Postage, etc.	700 00	947 22	1,000 00	1,21[illegible] 85	1,200 00	1,213 57	.....	2,440 00	2,440 24	.....	2,500 00	2,288 18	.....	2,500 00	2,323 09	.....	2,500 00	2,401 12	.....	1870	996 63
Branches.	East Boston Branch.				South Boston and Roxbury Branches.			Roxbury Branch completing outfit. Charlestown and Brighton libraries reorganized as branches,			Dorchester Branch.										
Books and Periodicals	4,250 00	3,899 69	.....	.....	S. B. 3,000 00	3,037 76	.....	Ch'n. 746 55	602 40	.....	3,000 00	3,529 33	.....	.....	.....	.....	.....	.....	.....	1871	1,150 00
					Rox. 3,000 00	2,274 10		Bri.	.....	.....										1872	1,472 44
Fixtures, Catalogues, Printing, etc.	1,700 00	2,323 41	.....	.....	S. B. 4,500 00	4,669 30	.....	Ch'n.	343 42	.....	4,500 00	2,664 96	.....	.....	.....	.....	.....	.....	.....	1873	1,681 79
					Rox. 4,500 00	595 25		Bri.	175 34	.....										1874	2,000 00
								Rox. 3,000 00	4,084 97	.....										1875	2,360 24
Salaries	3,000 00	1,117 35	.....	.....	S. B. 2,500 00	2,660 43	.....	Ch'n.	791 87	.....	2,500 00	1,026 45	.....	.....	.....	.....	.....	.....	.....	1876	2,505 35
					Rox. 2,500 00	268 88		Bri.	291 88	.....										1877	3,092 12
Totals	$65,000 00	$70,443 70	$67,000 00	$74,92[illegible] 84	$91,000 00	$86,498 41	$2,181 10	‡$127,593 83	$133,775 68	$1,652 22	$135,000 00	$130,483 11	$2,193 61	$118,000 00	$128,204 00	$1,547 18	$111,500 00	$124,396 86	$1,833 86		

* The appropriation for periodicals is included in that for books.

† The appropriation for binding before this year had included the salaries of the workmen in the Bindery, but is now changed to the appropriation for salaries.

‡ $25,197.28 of this amount brought from last year, and added to the appropriation for books, to enable the Trustees to buy the Barton Library. The total appropriation includes an increase of $11,650, by vote of the City Council in December, 1873, in anticipation of the annexation of Charlestown and Brighton. The difference of the total amount expended and appropriated is met by the income of the Trust Funds.

NOTE. — The expenditures for books cover the cost of those chargeable to our Trust Funds Account, as well as those charged to the annual appropriations from the City, and also includes such as are bought with the balances with our foreign agents at the close of the previous year. Our financial and library years now nominally correspond, but it will happen that bills accruing subsequently to the middle of March (when the last requisition of the year, payable April 1st, is approved) will be audited in the subsequent year's account, beginning nominally May 1st. In this way books added between March 15th and May 1st may be counted in one year's growth, and paid for in the subsequent year's account. The cost of maintaining Branches after the first year makes part of the general items of the several appropriations.

The money for books bought on account of the Fellowes Athenæum is spent under the direction of the Book Committee of the Trustees of the Fellowes Fund.

APPENDIX XXV.

LIBRARY FUNDS. — INVESTED IN CITY OF BOSTON SIXES.

	Giver.	Amount.	When delivered.	No. of Bond.	When due.	Income.	Provisions.
1	Joshua Bates	$50,000 00	March, 1853	1,727	April, 1894	$3,000	To buy "books of permanent value."
2	Jonathan Phillips	20,000 00	April, 1861	352	January, 1906	1,800	"To the maintenance of a free Public Library."
		10,000 00	April, 1853	1,725	April, 1894		"Purchase of books."
3	Abbott Lawrence	10,000 00	May, 1860	281	July, 1905	600	Books having a permanent value.
4	Henry L. Pierce	5,000 00	December, 1873	1,567	January, 1894	300	"Books of permanent value for the Bates Hall."
5	Mary P. Townsend	4,000 00	July, 1861	8,296	April, 1879	240	Books five years old in some one edition.
6	George Ticknor	4,000 00	April, 1871	10,480	April, 1891	240	Books in Spanish and Portuguese, five years old in some one edition.
7	John P. Bigelow	1,000 00	August, 1850	1,726	April, 1894	60	Purchase of books.
8	Franklin Club	1,000 00	June, 1863	5,531	January, 1884	60	Books of permanent value, preferably "books on Government and Political Economy."
9	Dorchester Fund	335 13	May, 1876	. . . . .	. . . . .	. . . . .	
		$105,335 13					

MEMORANDA.

(1) Joshua Bates, born near Boston, 1788; died in London, as head of the house of Baring Brothers & Co., 1864. In addition to this fund, he gave $50,000 worth of books to the Library.
(2) The sum of $10,000 was a gift in Mr. Phillips' lifetime. The other $20,000 was bequeathed by his will, dated 28th Sept., 1849. He died 29th July, 1860, aged 82.
(3) Mr. Lawrence died in August, 1855, and this sum was a bequest.
(4) This was a donation from Mayor Pierce, previous to his retirement from office. The principal or interest may be expended as deemed best.
(5) This fund was received from William Minot and William Minot, jr., executors of Miss Townsend's will, to whom discretionary power in making the gift was given by the will.
(6) This fund was a bequest, accompanying the testamentary gift of his Spanish and Portuguese Library. It is required that $1,000, at least, shall be spent every five years, for twenty-five years, for the addition of books to said library.
(7) This fund was a sum intended for a testimonial to Mr. Bigelow on retiring from the mayoralty, and transferred by him to this purpose.
(8) This fund was given by the Trustees of the Franklin Club, under authority given them at the dissolution of that Literary Association.
(9) This amount was transferred to the Library by the Dorchester and Milton Circulating Library Association after closing up their affairs.

APPENDIX XXVI.

LIBRARY SERVICE.

(*April* 30, 1877.)

Department.	Name.	Entered service.	Positions, Duties, Etc.	On regular service.	On time and extra service.	Total employed.
Executive Department.	JUSTIN WINSOR . . .	1868.	Superintendent and Secretary of the Trustees	1	. .	. .
	JAMES L. WHITNEY . . .	1869.	Assistant Superintendent and head of Catalogue Department	. .	. .	. .
	James M. Hubbard	1874.	Principal Assistant and second in Catalogue Department	. .	. .	. .
	Frederic B. Perkins . . .	1874.	Office Secretary and sub-executive officer	1	. .	. .
	Charles A. Wilson	1871.	Despatch Clerk. (*See also Bates Hall*)	1	. .	. .
	Miss Annie P. Call	1872.	Assistant Office Secretary and catalogue work	1	. .	. .
	Miss A. A. Nichols	1868.	Auditor and Cashier	1	. .	. .
	Frank H. Thomas	1874.	Superintendent's runner	1	. .	. .
	Total	. . . .	. . . . .	6	. .	6
Catalogue Department.	JAMES L. WHITNEY . . .	1869.	Head of the Department. (*See Executive Department*)	1	. .	. .
	James M. Hubbard	1874.	Second in the Department. (*See Executive Department*)	1	. .	. .
	William H. Foster	1860.	Proof Reader	1	. .	. .
	Arthur Mason Knapp . .	1875.	Pamphlets, periodicals, newspapers, duplicates, and Barton and Prince libraries	1	. .	. .
	Miss Mary F. Osgood . . .	1877.	Assistant to Mr. Knapp	1	. .	. .
	Richard Ray	1876.	Assistant to Mr. Knapp	1	. .	. .
	José F. Carret	1875.	Patents, engravings, and Catalogue work	1	. .	. .
	Mrs. Susan A. Joslyn . .	1873.	Assistant in Patent Room, etc. . .	1	. .	. .
	Mrs. A. C. D. Keen . . .	1872.	General Cataloguer	1	. .	. .
	Mrs. Eliz. T. Reed	1873.	Assistant General Cataloguer . . .	1	. .	. .
	Mrs. R. M. Eastman . . .	1859.	*Extra.* Documents, etc.	. .	1	. .
	Miss Mary E. Joslyn . . .	1871.	*Extra.* Catalogue work	. .	1	. .
	Frank C. Blaisdell	1876.	Runner	1	. .	. .

LIBRARY SERVICE. — *Continued.*

Department.	Name.	Entered service.	Position, Duties, etc.	On regular service.	On time and extra service.	Total employed.
Catalogue Department.	*Card Catalogue.*					
	Miss H. E. Green	1873.	Curator	1	. .	. .
	Miss Alice M. Porée	1866.	Assistant	1	. .	. .
	Miss Josephine Hewins	1875.	Assistant	1	. .	. .
	Miss Emily C. Osgood	1875.	Assistant	1	. .	. .
	Miss Ellen F. McCarthy	1872.		1	. .	. .
	Total			16	2	18
Ordering and Receiving Dep't.	Miss Harriet N. Pike	1867.	Chief Clerk	1	. .	. .
	Miss Mary A. McGrath	1868.	Assistant	1	. .	. .
	Marie L. Clapp	1876.	Assistant	1	. .	. .
	Miss Ellen Stevenson	1869.	Assistant	1	. .	. .
	Total			4	. .	4
Shelf Department.	Appleton P. C. Griffin	1865.	Custodian	1	. .	. .
	Timothy Donovan	1873.	B. H. Assistant	1	. .	. .
	John Mahony	1876.	B. H. Assistant	1	. .	. .
	Annie M. Kennedy	1869.	L. H. Assistant	1	. .	. .
	Total			4	. .	4
Bates Hall.	Henry Ware	1875.	Keeper	1	. .	. .
	Charles A. Wilson	1871.	Assistant Keeper (see also Executive Department)	1	. .	. .
	Miss L. F. Knowles	1867.	Delivery Assistant	1	. .	. .
	Miss Mary E. Brooks	1873.	Receiving Assistant	1	. .	. .
	Alfred Newmarch	1875.	Runner	1	. .	. .
	Thomas Whyte	1874.	Runner	1	. .	. .
	John Cameron	1876.	Runner	1	. .	. .
	Robert J. Donovan	1876.	Runner	1	. .	. .
	John A. Lathrop	1876.	Runner	1	. .	. .
	Total			9	. .	9
Lower Hall	Elbridge Bradshaw	1869.	Keeper	1	. .	. .
	Alfred A. Brooks	1875.	Assistant Keeper	1	. .	. .
	Miss Sarah A. Mack	1863.	Delivery Clerk	1	. .	. .
	Miss Eliza J. Mack	1863.	Receiving Clerk	1	. .	. .
	Miss Elizabeth Ross	1869.	Keeper's Clerk	1	. .	. .

LIBRARY SERVICE. — *Continued.*

Department.	Name.	Entered service.	Position, Duties, etc.	On regular service.	On time and extra service.	Total employed.
Lower Hall.	Miss Ella Sturmy	1872.	Assistant	1	..	..
	Margaret A. Sheridan	1875.	Assistant Delivery Clerk	1	..	..
	Mary Connor	1873.	Runner	1	..	..
	Margaret Donovan	1874.	Runner	1	..	..
	Annie G. Shea	1874.	Runner	1	..	..
	Margaret Doyle	1875.	Art-Room attendant	1	..	..
	Wm. F. Robinson	1872.	Registration and Fine Clerk	1	..	..
	Miss Caroline E. Porée	1859.	Reading-Room attendant	1	..	..
	Miss Ellen E. Bresnahan	1869.	Assistant R. R. attendant	1	..	..
	Evening Service.					
	Frederic Kyle	1874.	Registration Clerk	..	1	..
	William Hanna	1876.	Sunday service	..	1	..
	David W. Tyler	1876.	Evening Police	..	1	..
	Miss Ella Dillon	1876.	Delivery Clerk	..	1	..
	Miss Catherine McGrath	1873.	Receiving Clerk	..	1	..
	Miss Amelia McGrath	1869.	Assistant	..	1	..
	Robert B. Ross	1873.	Reading-Room attendant	..	1	..
	Mary N. Burke	1875.	Runner	..	1	..
	Hannah Clifford	1876.	Runner	..	1	..
	Margaret Clifford	1876.	Runner	..	1	..
	Minnie Moore	1876.	Runner	..	1	..
	Florence Richards	1876.	Runner	..	1	..
	Total	....		14	12	26
Janitorial.	WILLIAM E. FORD	1858.	Chief Janitor	1	..	..
	Thomas Collins	1867.	Assistant	1	..	..
	Jerry Sullivan	1874.	Assistant	1	..	..
	Extra daily assistants					
	Total	....		3	..	3
Bindery.	FRANK P. HATHAWAY	1871.	Foreman	1	..	..
	Andrew M. Blake	1870.	Assistant	1	..	..
	Romeo Cervi *	1874.	Assistant	1	..	..
	J. R. Beckett	1875.	Assistant	1	..	..
	Michael J. Healy	1875.	Assistant	1	..	..
	James Pendergast	1875.	Assistant	1	..	..

* Absent in Europe part of the year.

LIBRARY SERVICE. — *Continued.*

Department.	Name.	Entered service.	Position, Duties, etc.	On regular service.	On time and extra service.	Total employed.
Bindery, continued.	Edward M. Roe	1876.	Assistant	1	. .	. .
	William F. Sampson	1876.	Assistant	1	. .	. .
	William N. Sanderson	1876.	Assistant	1	. .	. .
	Mrs. M. Wheeler	1869.	Sewer	1	. .	. .
	Miss Mary E. Austin	1874.	Sewer	1	. .	. .
	Miss Mary Moriarty	1875.	Sewer	1	. .	. .
	Mrs. S. E. Bowen	1876.	Sewer	1	. .	. .
	Miss Kate Reilly	1876.	Sewer	1	. .	. .
	Geo. W. Merson	1875.	Apprentice	1	. .	. .
	Total	. . . .	. . . . .	15	. .	15
East Boston Branch.	Miss Sarah C. Godbold	1871.	Librarian	1	. .	. .
	Miss Mary R. Pray	1870.	Reading Room Assistant	1	. .	. .
	Miss A. M. Wing	1872.	Desk Assistant	1	. .	. .
	Miss Mary E. Cathcart	1870.	Assistant	1	. .	. .
	Miss Nellie L. Lennon	1872.	Extra Assistant	. .	1	. .
	Addie H. Ghen	1876.	Extra runner	. .	1	. .
	Laura B. Morse	1875.	Extra runner	. .	1	. .
	Abbie M. Keen	1874.	Extra runner	. .	1	. .
	Bella Griffin	1876.	Extra runner	. .	1	. .
	George H. Hosea	1873.	Janitor	1	. .	. .
	Total	. . . .	. . . . .	5	5	10
South Boston Branch.	Miss Alice J. Bragdon	1872.	Librarian	1	. .	. .
	Miss Abbie Dalton	1875.	Receiving Clerk	1	. .	. .
	Miss Ellen A. Eaton	1872.	Reading Room Assistant	1	. .	. .
	Miss Emma Davis	1873.	Delivery Clerk	1	. .	. .
	Miss Honora McCarthy	1872.	Assistant	1	. .	. .
	Miss Cora Hale	1877.	Extra Assistant	. .	1	. .
	Mary Watson	1873.	Extra runner	. .	1	. .
	Elizabeth McCarthy	1873.	Extra runner	. .	1	. .
	Ida Sampson	1877.	Extra runner	. .	1	. .
	Minnie Sampson	1877.	Extra runner	. .	1	. .
	Marguerite Watson	1877.	Extra runner	. .	1	. .
	Joseph Baker	1872.	Janitor	1	. .	. .
	Total	. . . .	. . . . .	6	6	12

LIBRARY SERVICE. — *Continued.*

Department.	Name.	Entered service.	Positions, Duties, etc.	On regular service.	On time and extra service	Total employed.
Roxbury Branch.	Miss Clara E. Sanborn	1873.	Librarian	1	. .	. .
	Miss Sarah Bunker	1876.	Reading Room Assistant	1	. .	. .
	Miss Mary Bradley	1876.	Desk Assistant	1	. .	. .
	Miss Marietta Goldsmith	1873.	Desk Assistant	1	. .	. .
	Margaret E. Blood	1872.	Runner	1	. .	. .
	Mary M. Floden	1874.	Extra runner	. .	1	. .
	Mary Osgood	1877.	Extra runner	. .	1	. .
	Florence Vose	1876.	Extra runner	. .	1	. .
	Catharine Cleary	1875.	Extra runner	. .	1	. .
	L. Karcher	1877.	Extra runner	. .	1	. .
	Miss Alice W. Wheeler	1876.	Sunday service	. .	1	. .
	Charles R. Curtis	1873.	Janitor	1	. .	. .
	Annie J. Barton	1876.	Jamaica Plain Delivery	. .	1	. .
	Timothy Johnson	1876.	Jamaica Plain Janitor	. .	1	. .
	Total	. . . .	. . . . .	6	8	14
Charlestown Branch.	Dr. Cornelius S. Cartée	1870.	Librarian	1	. .	. .
	Miss Susan Edwards	1869.	Desk Assistant	1	. .	. .
	Miss S. M. Eberle	1874.	Reading-Room Assistant	1	. .	. .
	Lilian Davis	1874.	Runner	1	. .	. .
	Miss Annie E. Eberle	1874.	Extra assistant	. .	1	. .
	Miss Harriet N. Davis	1874.	Extra assistant	. .	1	. .
	John P. Jacobs	1875.	Extra runner	. .	1	. .
	H. Woodward	1876.	Extra runner	. .	1	. .
	Thomas E. Smith	1874.	Janitor	. .	1	. .
	Total	. . . .	. . . . .	4	5	9
Brighton Branch.	Miss Mary E. Brock	1875.	Librarian	1	. .	. .
	Bridget T. Grailey	1874.	Assistant	1	. .	. .
	Miss A. J. Wilson	1875.	Extra Assistant	. .	1	. .
	Charles F. Wheeler	1875.	Janitor	. .	1	. .
	Total	. . . .	. . . . .	2	2	4

LIBRARY SERVICE. — *Concluded.*

Department.	Name.	Entered service.	Positions, Duties, etc.	On regular service.	On time and extra service.	Total employed.
Dorchester Branch.	Miss Mary G. Coffin . .	1874.	Librarian	1	. .	. .
	Miss Esther R. Whiton . .	1874.	Assistant	1	. .	. .
	Miss Jennie Sheridan . . .	1875.	Extra Assistant	. .	1	. .
	Mary Elms	1876.	Extra Assistant	. .	1	. .
	Miss M. A. Hill	1875.	Agent at Lower Mills Delivery . .	. .	1	. .
	Edward Davenport	1875.	Janitor	1	. .	. .
	Total	. . . .	. . . . .	3	3	6

SUMMARY.

	Regulars.	Extras.	
Superintendent	1		*Central Library.* 70 regulars. 14 extras. — 84 in all.
Office Secretaries, Despatch Clerk, Auditor, and Runner	5		
Catalogue Department	16	2	
Ordering and Receiving Department .	4		
Shelf Department	4		
B. H. Circulating Department . .	8		
L. H. Circulating Department, Day, Evening, and Sunday Service . .	14	12	
Janitorial Department	3		
Binding Department	15		
East Boston Branch	5	5	*Branches.* 26 regulars. 29 extras. — 55 in all.
South Boston Branch	6	6	
Roxbury Branch	6	8	
Charlestown Branch	4	5	
Brighton Branch	2	2	
Dorchester Branch	3	3	
Totals	96	43	
	43		
Grand Total	139		

AGENCY DEPARTMENT.

Messrs. Lee and Shepard, *Boston.*

Messrs. Little, Brown, and Co., and Sampson Low, Marston, Low, and Searle, *Boston and London.*

Mr. Edward G. Allen (for English patents), *London.*

Mr. F. W. Christern, and M. Charles Reinwald, *New York and Paris.*

Dr. Felix Flügel, *Leipsic.*

Chev. Eugenio Albèri, *Florence.*

Señor Don Juan F. Riaño, *Madrid.*

APPENDIX XXVII.

EXAMINATION OF THE LIBRARY.

	Bates Hall.				Lower Hall.				East Boston Branch.				South Boston Branch.			
	1874	1875	1876	1877	1874	1875	1876	1877	1874	1875	1876	1877	1874	1875	1876	1877
Not on shelves	2,621	3,612	3,653	3,222	7,395	7,001	7,510	8,063	2,031	2,012	2,022	1,820	2,309	2,396	2,068	2,047
Of these found to be																
Loaned	939	1,970	2,161	1,991	6,304	5,254	6,121	6,868	1,745	1,729	1,811	1,618	1,993	2,101	1,876	1,932
At the binderies	852	997	920	622	206	622	718	681	120	137	73	44	129	155	141	72
Otherwise accounted for	801	596	542	573	853	948	536	445	164	146	133	153	185	128	50	43
Not accounted for . . .	29	49	30	36	32	177	135	69	2	. . .	5	5	2	12	1	. . .

	Roxbury Branch.				Charlestown Br.			Brighton Br.			Dor. Br.		Totals.			
	1874	1875	1876	1877	1875	1876	1877	1875	1876	1877	1876	1877	1874	1875	1876	1877
Not on shelves	2,908	2,441	2,850	3,300	1,636	2,209	2,092	. . .	728	707	1,835	1,362	16,654	19,098	22,875	22,613
Of these found to be																
Loaned	2,200	2,283	2,577	3,017	1,479	2,016	1,916	. . .	591	519	1,662	1,269	13,181	14,816	18,815	19,130
At the binderies	89	144	168	253	66	63	72	. . .	62	91	151	52	1,396	2,121	2,296	1,887
Otherwise accounted for	7	8	98	26	91	130	104	. . .	54	90	21	39	2,010	1,917	1,560	1,468
Not accounted for . . .	2	6	7	4	. . .	. . .	. . .	3	21	7	1	2	67	244	204	128

To the Superintendent: —

In the foregoing tables are respectfully presented the results of the annual examinations of the Central Library and Branches for the year ending April 30, 1877. In the

BATES HALL

the number of missing books is slightly increased from last year. Of the books missing previous years, the following have been found: 1 missing in 1869 was found in its place on the shelf, and 1 in the Pph. Department. 3 missing in 1875 have appeared; 2 were returned at the desk by borrowers, but no record of a loan could be found; 1 was found in the Ordering Department. Of 30 books missing last year, 8 have been found in various ways, viz.: 2 were at the binder's, 2 misplaced on the shelf, 2 were in use in the building, 1 had been transferred to the Lower Hall, and 1 belonging to the Parker collection was returned by a gentleman who had purchased it at a second-hand book-store. I have also to report that 7 books sent to the binder at different times cannot be found. In the

LOWER HALL

the result is very gratifying, as there is a reduction of nearly one-half in the number of books unaccounted for; 1 book missing in 1866, 1 in 1868, 2 in 1874, 3 in 1876, have been found.

From the Bates Hall Desk, —Weller's Dict. of the English and French languages is missing.

From the R. R. Desk — Soule, English synonymes; Encyclopædia Americana, v. 12; Boston Public Library Bulletins, vol. 1.

From the Brighton Branch R. R. — Smith, Dict. of Greek and Roman Antiquities; Smith, Greek and Eng. lexicon.

Respectfully submitted,

APPLETON P. C. GRIFFIN,

Custodian of the Shelves.

PUBLIC LIBRARY, May 31, 1877.

APPENDIX XXVIII.

WORK IN THE LIBRARY BINDERY.

CHARACTER OF WORK.	1871-2	1872-3	1873-4	1874-5	1875-6	1876-7
Bates Hall books bound and finished	2,219	2,008	2,635	2,613	3,223	4,759
Books of the Lower Hall and Branches	1,015	744	753	1,508	7,766	8,743
Books repaired	396	430	492	444	959	873
Catalogues wired and covered for public use in Lower Hall and Branches.	490	437	287	143		
Maps dissected and mounted	47	28	9			
Map-volumes and shelf-lists mounted	212	165	109	493	820	2,712
Pamphlet cases	546	64	24			
Portfolios	5	8	8			
Removable covers for catalogues and for paper-covered books	266	263	450	1,520	1,287	1,271
Maps mounted, bound, and bordered	54	41	8	. . .	. . .	. . .
Hours of miscellaneous work	1,842	2,297	1,437	2,486	2,183	2,586

APPENDIX XXIX.

THE LATE BENJAMIN P. HUNT, OF PHILADELPHIA.

PHILADELPHIA, April 23, 1877.

To JUSTIN WINSOR, ESQ., *Supt. Boston Public Library, Boston, Mass:* —

DEAR SIR, — In compliance with your request, I send you a sketch of the life and character of the late Benjamin P. Hunt, written by Miss Chamberlain, the young lady who for some years has acted as Mr. Hunt's secretary and amanuensis. From her knowledge of, and intimacy with, Mr. Hunt, I know of no one better qualified to prepare such a memorial; and it appears to me to be simply and naturally written, and within the limits of just eulogy. You will make such use of it as you please.

I fear I shall be unable to furnish you with a portrait of him of any kind, which I regret, as he was a man of noble presence and marked features.*

Very truly yours,

JOSEPH PARRISH,
Executor.

SKETCH.

BENJAMIN PETER HUNT was born in Chelmsford, Middlesex County, Massachusetts, on the 18th day of May, 1808. His ancestors were of the early Puritan stock, and in 1641 we find one of them, "William Hunt, admitted freeman of Concord," and in 1655 another, Edmund Chamberlain, the same, of Chelmsford. From his mother he inherited a wonderfully retentive memory, a calm and impartial judgment, and the absolute loathing of all deception, shams, and falsehood, which made him such a terror to evil-doers.

He attended the common school until he was seventeen, when a year spent under the instruction of Ralph Waldo Emerson, at the Chelmsford Academy, gave him an impulse to a higher education. In 1828 he entered Harvard College, the classmate, among others, of the Rev. Doctors Bellows and Osgood, the Honorable Geo. T. Curtis, John S. Dwight, Esq., and the Rev. Charles T. Brooks. Not remaining to finish the course, he came to Philadelphia, literally to seek his fortune. He taught a classical and scientific school for a number of years, reading everything that came in his way,

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* An excellent photographic likeness has kindly been forwarded to us.

and always seeking for his associates the cultivated and refined of both sexes. At last, digusted with the school-master's drudgery, he determined to adopt a new calling, and sailed for Kingston, Ja., on the 6th of March, 1840, as supercargo of the brig "Olive." An account of this voyage was published in two numbers of "The Dial," in 1843. Emerson speaks of it as follows: "It seems to me the best of all sea voyages. Besides its rhetorical value, it has another quite additional, inasmuch as it realizes so fully for me the promise of the large, wise boy who made my school-days in Chelmsford so glad by his lively interest in books and his native delight in ethical thought, and life looks more solid and rich to me when I see these many years keep their faith." Hawthorne cites this piece from "The Dial" as "a solitary example of facts which had not lost their vigor by passing through the mind of a thinker."

In 1842 Mr. Hunt went to Hayti to engage in mercantile business, landing at Cape Haytien in May, 1842, just after the earthquake had nearly buried the town. Here, at the scene of the defeat of Le Clerc's expedition, he visited the birthplace of Toussaint, and the old haunts of Dessalines and Christophe, and here began his study of the West Indian negro character and his almost unique collection of books relating to these islands. Success attended his efforts, and he became the head of a wealthy commercial house in Port-au-Prince. The natural integrity of his character, his close attention to business, and his pleasure in literature, kept him from the dissipation and immorality into which foreigners in the West Indies so often fall. In 1851 he married a lady of Philadelphia, and in 1858, after making several visits to the United States, his health began to fail, and he retired from business, making Philadelphia his home, and he was only too happy to spend his life in his quiet library among his beloved books. In 1860 he wrote and published a pamphlet called "Remarks on Hayti as a Place of Settlement for Afric-Americans, and on the Mulatto as a Race for the Tropics." If in it he advocated the amalgamation of the white and black races, it was because he had found the mulattoes of Hayti a self-respecting, intelligent, prospering, and healthy people, infinitely superior to the blacks in all mental qualities, and particularly adapted to the tropical climate. "The merchants, the lawyers, the doctors, the schoolmasters, of Hayti were all of the mixed race, and even among laboring men the mulattoes were equal to the blacks in strength and endurance, and superior to them in skill and address." An unconscious Darwinian, he had found the blacks, "by the marvellous and burr-like tenacity with which they stick to the white man and his localities," extinguishing their own lower race, and giving way to a higher. He arrived at these convictions after years of patient study, earnest observation, and daily intercourse with the Haytiens.

A sincere abolitionist, Mr. Hunt early took part in work for the freedmen, and earnestly labored as the Corresponding Secretary of the Port Royal Relief Committee, the Secretary and Treasurer of the Pennsylvania Freedmen's Relief Association,—which latter position he relinquished when it became a salaried office, — and as one of the

Supervisory Committee for Recruiting Colored Soldiers in Pennsylvania. When the war was ended, he set himself to right the wrongs of the colored people in his adopted city. Soldiers' wives, going in the street cars to visit their husbands and relatives at Camp William, were from day to day rudely pushed from the platform or made to stand outside in pouring rain. An Episcopal clergyman was forcibly pushed to the ground from a car because he was colored, and this without a word of remonstrance from his white brethren in the ministry. Seeing this brutality committed daily under the sanction of the law and public opinion, Mr. Hunt, almost single-handed, set to work to effect a remedy. He collected money, he called public meetings, he prosecuted the presidents of railroad companies, he petitioned the Legislature. For two years the struggle continued, until in March, 1867, an act was passed making such exclusions amenable to law. Perhaps at our next centennial some antiquarian will happen upon a huge scrapbook, now in Mr. Hunt's library, in which he will find every letter that was written, every case tried, and memoranda of every dollar collected by the laborious committee of which Mr. Hunt was the moving spirit.

In 1868, when five thousand orphans of the white soldiers of Pennsylvania had been gathered into the homes provided for them by the State, and not one orphan of a colored soldier had been noticed, he entered upon the work of securing to them their share of the benefits. These orphans were scattered far and wide over the State, many of them receiving no pensions, and unable, through ignorance and want of friends, to make their wrongs known. He sought them out, and from highways and byways, from almshouses and houses of refuge, he took these little orphan children literally by the hand to a spacious dwelling on the Delaware, provided for their reception by "certain godly men and women of Philadelphia," whom he had interested in their behalf, and where they received from the State the support and education which had been pledged to them.

In June, 1869, Mr. Hunt was requested by President Grant, through Secretary Fish, to "join a party of gentlemen, going to the West Indies for the purpose of obtaining information concerning several interesting localities in those islands, but more especially Saint Domingo." This project of annexation was very dear to him, but from motives entirely different from such as governed many of those interested in the subject. To some it was either the advantages of a coaling station, or so much more gold, sugar, coffee, and rum added, free of duty, to their commerce; but to him it was the door which opened the way for our laws, civilization, and Christianity, to permeate a half-barbarous community of blacks, who are keeping up to this day many of the superstitious practices which they brought from Africa. On the eve of the commission's departure from New York he was obliged reluctantly to give up his share in it, on account of sickness; but he kept, to the day of his death, the unshaken faith, that, sooner or later, the islands of the West Indies will form a part of the great Republic of America; and he left, unpublished, a most interest-

ing and valuable account of the condition of society as he found it in Hayti, which his long intercourse with its people, his sympathy for them, and his insight into character, rendered him peculiarly fitted to describe.

At this time his generally failing health preventing him from active participation in works of charity, with sincere pleasure he took up a long-cherished scheme of writing a history of the poor. Hundreds of volumes he read, or had read to him, and from them made extracts, covering the period from the days of villeinage down to the beginning of the 19th century. No detail nor scrap of information was passed by, and his labor of love was fast growing into shape under his hands, when it was interrupted by his sickness and death. In this, as in every work of his life, the good of humanity was his motive and principle.

As, partly to reveal the hidden springs which kept in motion this life of love to the neighbor, brief mention should be made of his deeply religious character. In 1844, being then at Cape Haytien, his mother wrote to him, "You observe that you have made up your mind to call nothing of misfortune but a sinful life. . . . When you were a child, you read the Bible more than any one of my children, and I hope you do not neglect it now that you have arrived almost at the meridian of life." And his Bible was neither forgotten nor neglected, but its sacred precepts were ever upon his lips. In 1854 his friend, the Hon. John Bigelow, placed some of the works of Swedenborg in his hands. Thoughtful reading of them was succeeded by profound and reverent belief in their doctrines. His entire trust in the goodness and wisdom of God and his spiritual humanity were marked characteristics of the man.

His physician said, "When I look at Mr. Hunt in his sufferings, I can think of no other word than 'majestic,' to describe his appearance." When some one said to him a few days before his death, "I think you will be a judge in the spirit world, — for if ever any one could decide between right and wrong, justice and injustice, you are that one," he replied, "I cannot tell what I shall be there, nor even if I shall go to heaven; but wherever the Lord appoints me, and gives me a work to do, there is my place, and there I shall be satisfied."

In the preface of a little work recently published, "The Wit and Wisdom of the Haytiens," by John Bigelow, there is the following reference to our benefactor: —

"In this work, I was under special obligations to Mr. B. P. Hunt, of Philadelphia, then the head of a large commercial house in Port-au-Prince, who, to a general culture of high order, added a familiarity with the history of Hayti, and with the peculiarities of its people, which is possessed by no other person to my knowledge. His collection of books relating to the Antilles is the most complete in this country, perhaps in the world. He has been good enough to increase my manifold obligations to him by looking over the following collection, and making notes the value of which I have taken the liberty of sharing with my readers."

Miss Chamberlain kindly communicates the following memorandum concerning the other library, relating to the West Indies, which Mr. Parrish referred to in his first note, printed in the body of this report. Mr. Sumner at one time communicated with this Library on the matter; but the suma sked, and the money at our disposal at that time, forbade its purchase: —

"In 1872 Mr. Linstant Pradine, of Port au Prince, sent to Mr. Hunt a catalogue of his collection of books relating to the West Indies, slavery, etc., offering it for sale, and asking his assistance in doing so. The books were then in Paris, and the price he offered them for was $8,000.

"On examining the catalogue, he found the collection to consist of about 3,745 books, including pamphlets; but more than half the number related to colonies in general, — Bourbon, Mauritius, Africa, Madagascar, slavery, etc.,— so that it is more than probable that, of the two collections of books, relating wholly to the West Indies, Mr. Hunt's is the more valuable. He sent the catalogue to the Librarians of the Congressional Library, of the Astor Library, and of the N. Y. Historical Society, and was in correspondence with Mr. Sumner and Dr. S. G. Howe in regard to offering it to the Boston Public Library. Want of interest in the subject, together with want of means, prevented Mr. Hunt from finding any sale for it, and he sent back the catalogue in October, 1875, to its owner in Port-au-Prince.

"Mr. Hunt had a very high opinion of Mr. Pradine and his books. He wrote to the Librarian of Congress, as follows: 'Mr. Linstant Pradine is a Haytien lawyer of distinction, who has not only been employed in high positions at home, but has, at different times, represented Hayti, as Chargé d'Affaires, both at London and Paris. He is also the author of an elaborate work entitled "Recueil des Lois et Actes du Gouvernement d'Haïti," in five volumes, as well as some other works of interest, relating to his country.'"

CITY OF BOSTON.

City Document No. 67.

FIFTH ANNUAL REPORT OF THE BOARD OF HEALTH OF THE CITY OF BOSTON.

May 1, 1877.

To the City Council of Boston: —

Agreeably to the ordinances relating to the public health, we herewith submit our annual report for the year ending April 30, 1877. During the year our attention has been given, as usual, to such matters as are comprehended in the abatement of nuisances, examination of vacant lots, drains, offensive trades, tenement-houses, small-pox, scarlet fever, fish-pedlers, grease-collectors, removal of manure, care of burial-grounds, infant boarding-houses, lying-in hospitals, adulteration of food, and quarantine. Some of the subjects mentioned require a more extended notice, as will be seen elsewhere.

Sewerage.

The subject of improved sewerage for Boston has never been omitted in any of our annual reports, and we cannot be silent now, since it is our first and greatest desire to see this great work, the most important in our day, begun and completed at the earliest possible moment.

It is our duty to lose no opportunity to impress upon you not only the present, but the immensely increasing, demand for a system of sewerage worthy of the name. We have not such a system to-day, and we can ill-afford to wait for the time necessary to make one.

It is now two years since the City Council took the first, and a very important, step in this direction, by appointing a commission of experts, who at an early day presented the Council with the groundwork, if not the best possible plan, for the construction of a complete system of sewerage.

It is unnecessary to say that the poor of Boston are to-day not only suffering for want of work, but suffering from the foul sewer stenches, against which this very work should be

directed. It is too true, and is already too sadly felt in the light of poverty and sickness.

It is also unnecessary to say that the moneyed men of Boston, who are to bear the expense, the medical profession, who are daily witnessing its great need, and the thinking community at large, have often and loudly spoken in favor of an immediate beginning of this great work.

The diminishing value of real estate in insalubrious but costly parts of our city, as well as our too high death-rate, from preventable causes, demands it without delay.

The Back Bay, so called, now a very hackneyed subject, continues to demand a great deal of attention and is an almost constant source of complaint.

Temporary measures have been resorted to by the Board of Health from year to year, with more or less good effect in mitigating this great nuisance.

Desiring that this question should be considered by the City Council, and in deference thereto, the following statement and recommendations were made to the Council in March last: —

OFFICE OF THE BOARD OF HEALTH,
BOSTON, March 19, 1877.

TO HIS HONOR THE MAYOR AND CITY COUNCIL OF BOSTON: —

Gentlemen, — The Board of Health respectfully invites the attention of your honorable bodies to a section of the Back Bay, so called, which demands some early action on the part of the city. For many years portions of the south and west ends of our city have suffered during the warm season from intermittent stenches, which have been attributed to a variety of sources.

The first experience of the Board of Health with the section referred to was in 1873, when the residents west of Arlington street complained of bad odors coming to them with westerly winds.

Investigation showed that a large portion of the Back Bay was in a state of nuisance; but one section, consisting of foul water and mud, shut off from the tide near the junction of Commonwealth avenue and Parker street, was much worse than the rest. The Board caused the tide-water to flow in and out daily, and the complaint ceased for that season. This section has since been entirely filled with clean gravel.

In 1874 the flats about Parker street were seriously complained of. The city was indicted for maintaining a nuisance, and the Board of Alderman ordered that the channel across the flats from the mouth of Stony-brook river be deepened. The season passed without further action, and in December the Board of Health called the attention of the City Council to the same nuisance, in a communication on improved sewerage.

In 1875 complaints were again made, and the Board of Health adopted the cheapest expedient within its reach, by erecting a stone dam about six feet high at the Beacon-street sluiceway. This was sufficient to cover the flats at low water and still allow a considerable change of water at each flow of the tide. This measure brought immediate relief, but it was not without an objectionable feature, inasmuch as it caused a more rapid deposit of the large amount of sewage which was turned into this body of shoal water from the Highland district and Brookline.

The relief lasted, however, for nearly two seasons, or until last fall, when the people of a large section of the South End were much disturbed and sickened by the foul odors which came directly from the Back bay in the region of the mouth of Stony-brook sewer.

The Board of Health made repeated visits and found that for acres in extent the water about the Stony-brook sewer was turbid and foul, to a sickening degree.

There was also a large creek, twenty or thirty feet wide, extending from Parker street south-easterly about 2,000 feet to the Boston & Providence Railroad. This creek receives the sewage of the Berlin-street district, and is also subject to the flow of the Stony-brook sewage at every flood tide. In degree of nuisance it is second only to the Roxbury canal. The filthy waters of this whole section are agitated by the prevailing westerly winds of summer and autumn, and the stench is carried directly to the dwellings of a large part of the South End, whose residents bitterly complain. There are two reasons for expecting that the nuisance from this source will be far greater the coming season than ever before. One, is that the stone dam at the sluiceway had to be removed last fall, to allow a more thorough change of water and scour of the channel through the winter, leaving the flats bare at low tide. The other is, that, in addition to the accumulation of many years upon these flats and in the creeks, the flow of sewage is now greater than ever before.

We would respectfully recommend that, until the prospective system of sewerage which we confidently hope for is completed, there be temporary means used to keep the flats covered, by gates at the sluiceway or otherwise, and that the creek leading from Parker street to the Boston & Providence Railroad be filled with gravel, and the Berlin-street sewer (made of plank) extended to Parker street.

S. H. DURGIN,
Chairman.

The communication was referred to the Committee on Health, who, after consideration, concluded to leave the matter with the Board of Health, recommending the rebuilding of the stone dam at the sluiceway.

The re-erection of the stone dam at the sluiceway, by which the flats may be kept covered with water, is anticipated for the coming season, and will no doubt in some degree lessen the evil; but we cannot expect from such means the same amount of relief which they have given in years past.

The flats have now become so filled and loaded with filth, that a shoal covering of water will give but partial protection against the gases which are constantly rising from this foul mud of a hundred acres.

If no more sewage from this time should be discharged upon these flats there would be immediate improvement, although it would even then take years for the water to dissipate entirely the foulness of this mud; but with the present vast flow of sewage from thirty thousand inhabitants, together with the drainage of many large manufacturing establishments, breweries, etc., into this mere precipitating basin of shoal water, the outlook is anything but encourging, and

will be until some radical and decisive measure is taken, by which the entire sewage of this section of the city will be conducted elsewhere into deep water.

Roxbury canal still remains prominent among the nuisances of Boston.

Leading in from the South Bay, five or six rods wide, and extending several thousand feet, to Harrison avenue, we find this great slough or open sewer in the midst of a thickly populated section. The sewage and mire lie, a fathom deep, bubbling their gases through the black, putrid water, while the lighter and soluble portions of filth are slowly surging back and forth with the rising and falling of the tide. The sight of this canal from the Albany-street bridge is sufficient to nauseate any decent man, and it is said that horses even have refused to cross the bridge over this slough.

We would gladly pass over this subject without a word of complaint, but duty forbids, even though we have besought its remedy for four years in vain. Business and dwelling are alike rendered exceedingly uncomfortable and unhealthy in the whole neighborhood at times, including one of the most beneficent and well-managed institutions in New England, where two hundred and fifty patients lie blessed with everything which an intelligent and worthy Board of Trustees and Hospital Staff can supply, yet deprived of nature's greatest gift, — pure air.

Last fall the medical staff of the City Hospital, together with other physicians and people of that neighborhood, petitioned the City Council for relief from this canal nuisance. Thereupon the City Council asked the Legislature for authority to fill the canal, as a remedy for the trouble. The legislative Committee on Harbors to whom the subject was referred, gave a long and patient hearing on the subject, reported in favor of the petitioners, and the Legislature then granted authority to the City Council to take the land and fill the canal.

We cannot think the present City Council, knowing the nature and extent of this nuisance. and having the power in their hands to abate it, will allow the people of that neighborhood to pass through another season with this open sewer in their midst.

Another serious nuisance, which has brought numerous complaints of citizens, directly and indirectly, to the Board of Health, exists between the Eastern Railroad and Canal street in the Charlestown District.

Two years ago the greatest nuisance in that section was adjoining the State Prison, and was due to two or three acres of sewage flats, which were left bare at low tide, and which

gave off the most unbearable stench. This property belonged to the Commonwealth, and was in charge of the prison inspectors, who were duly notified to abate the nuisance, but, failing to do so, the Board of Health was obliged to contract for the work, and abated the nuisance by filling the flats to a grade above high water. For this work the city now has a bill against the State for about nine thousand dollars.

Since then the complaints have generally designated the Mill-pond flats as the source of the nuisance; but on careful and repeated examinations of the Board of Health, the nuisance is not found upon the Mill-pond flats in any degree. But below the dam of the Mill-pond, all the way to near the prison, there are flats which are left bare at low tide, upon which the sewage that formerly lodged near the prison is now rapidly accumulating, and from which a very considerable nuisance must arise.

We recommend the abatement of this nuisance by the City Council as our appropriation is insufficient for a work of such magnitude.

WET CELLARS.

The sanitary condition of dwellings which are periodically affected by tide-water and the overflow of Stony brook has for years been the cause of serious complaint. These two evils cannot be remedied except by a large expenditure of money. While this Board has, by statute law, undoubted authority to "destroy, remove, or prevent, all nuisances, sources of filth, and causes of sickness," within the city, yet when questions of the magnitude of the above arise, requiring so large an outlay, we have deemed it prudent to communicate the facts to your honorable body, and await your action, rather than expend so large an amount, as would be required in such instances, without first obtaining your approval.

On the 10th of April, we received from your honorable body the following communication: —

CITY OF BOSTON.

IN BOARD OF ALDERMEN, April 10, 1877.

Ordered, That the Board of Health be requested to examine the cellars and dwellings along the borders of Stony brook in Ward 23, and report to the City Council, as early as may be, to what extent said cellars and dwellings are affected by the overflow of said brook; also to report whether, in the opinion of the Board, the condition of the cellars

is such as to jeopardize the health of the occupants of the dwellings, and thus affect the sanitary condition of the above-named locality.

Passed in Common Council.

Came up for concurrence.

Read and concurred.

Approved by the Mayor April 10, 1877.

A true copy.

Attest: S. F. McCLEARY,
City Clerk.

In reply to the above we sent the following communication: —

OFFICE OF THE BOARD OF HEALTH.
April 19, 1877.

TO THE HONORABLE THE CITY COUNCIL OF BOSTON: —

Gentlemen, — In compliance with an order of the City Council, passed the 10th inst., requesting the Board of Health to examine the cellars and dwellings along the borders of Stony brook, in Ward 23, we beg leave to state that the premises have been examined, with the following result.

On Lamartine, Washington, Boylston, Keys and Green streets, Boylston, Union, Greenwood, and Brookline avenues, we found over one hundred dwellings whose cellars were flooded during the recent high state of Stony brook, to the extent of from two inches to three feet of water in depth, which remained in said cellars from two or three days to three weeks. The evidence showed that the same condition of the cellars occurred whenever the brook had suddenly been raised. From the examination made, and the evidence obtained, we are satisfied that of 124 dwellings examined, at least 100 cellars were flooded as above stated by the high state of Stony brook. It is a well-established fact that wet cellars and damp dwellings are prejudicial to health, and it is the unqualified opinion of the Board of Health, that the recent and present condition of the above-mentioned cellars and premises was and is such as to jeopardize the health of those living over them, and that some remedy against the evil should be applied.

Respectfully submitted,

S. H. DURGIN,
Chairman.

A large number of dwellings at the South End are in a much worse condition from tide, sewage, and surface water; whenever there is a heavy rainfall at high tide many of them are unfit for occupancy. The number is so large that the Board has hesitated to order them vacated. The cellars are wet; the dwellings damp; the walls become covered with mould, and the rooms filled with the sickening odors of decaying vegetable matter.

That something should be done to relieve the occupants of these dwellings there can be no question.

We believe that the only effectual remedy for these two evils is: —

1st. The laying of the proposed marginal sewer, to exclude the tide water.

2d. The widening, straightening, and deepening of the channel of Stony brook, to prevent its overflow.

We beg to urge upon your honorable body the necessity of some immediate action in this matter, and trust no time will be lost in applying the proper remedies.

TENEMENT HOUSES AND NUISANCES.

During the past year the 2,700 tenement houses in the city have been carefully inspected throughout five times.

In explanation of this work, it should be understood that a tenement house, as defined by the statutes, "*shall be taken to mean and include every house, building, or portion thereof, which is rented, leased, let, or hired out to be occupied, or is occupied, as the house or residence of more than three families, living independently of one another, and doing their cooking upon the premises; or by more than two families upon a floor, so living and cooking, but having a common right in the halls, stairways, yards, water-closets, or privies, or some of them.*"

The inspection of a tenement house requires the examination of the yard, privies, receptacles for garbage, cellar drainage, floors, stairs, roof, whitewashing, and ventilation. Upon the first inspection of a tenement house, the officer is required, in addition, to get the date when it was built, the material, number of stories in height, rooms, families, adults, and children; whether a water-closet or vault is provided for the occupants, number of rooms in the cellar, how many persons occupy the same, and the condition of repair in which the house is at the time of the officer's visit, — of which a record is kept in the office.

Many of these houses require and have a more frequent inspection, as often sometimes as once a week. The effect of frequent inspections is to improve the habits of many of the occupants, whose dislike at being annoyed by notices from City Hall is greater than that of keeping clean, and, choosing the lesser evil, they keep clean.

Our experience with tenement houses is that some are always clean, and some are always filthy, notwithstanding the efforts made to keep them in a condition of at least passable cleanliness. In many cases, the filthy condition is entirely owing to the negligence of the occupants. In some cases it is the fault of the landlord, who fails to provide means, common to every house, by which the efforts of the occupants are facilitated. It is a pleasure to state that most

of the landlords are anxious to keep their premises in good condition, and respond at once to the notices from the Board of Health.

A large number of the tenement houses are occupied by poor people, without the means to move when dissatisfied or discomfited, and they are therefore obliged to endure the odors arising from defective drains, imperfect waste-pipes, or other causes for which they are not responsible. It is to be regretted that there are landlords who are so lost to the consideration of the health and comfort of their tenants as to require the enforcement of the extreme measures of the law; but the records of our office show that in some instances it is so.

As an illustration of the difficulty with some of the landlords, an extreme case is selected: the property, consisting of four large tenement houses, contains, when fully occupied, sixteen families. The owner is a clergyman in Providence. The attention of the owner having been called to their condition, the customary notice was sent, and a reply returned that his agent had been directed to repair, etc., to the satisfaction of the Board of Health, and requesting that a delay might be made in the proceedings. As this seemed a reasonable request, the delay was granted. After the lapse of ten days the houses were again visited, and nothing was found to have been done; a second notice was sent to the owner, who replied again that his agent had been directed to fix the premises, and in the same letter gave the address of said agent. The agent was called upon, and informed the officer that he had no instructions to spend any money, and that the directions from the owner were so vague that he would assume no responsibility in the matter; whereupon the owner was written to of this fact, and that, unless something was done at once, the Board of Health would feel compelled to cause the premises to be vacated. In answer to this a letter was received, saying he thought it was an injustice, and that taxation was high, etc., and that the city was unreasonable in expecting him to make palaces for these people to live in. After another delay of a few days, orders were issued for the occupants to leave the premises, whereupon the owner came to Boston, and expressed his willingness to put the premises in order. A mason was employed to go to work, but it was weeks before the houses were fit to live in, and then only after a second order to vacate had been issued by us. There has been scarcely a month during the last three years that the efforts of this Board have not been required to improve the condition of this same estate.

Similar trouble is experienced in the abatement of nuisances

which comprise stagnant water on vacant lots, defective drainage, defective vaults, filthy cellars, and all sorts and kinds of nuisances not specified in the "Tenement-house Law."

During the year each street, court, lane, alley, and yard in the city has been visited by the inspectors four times, and some a much larger number. In warm weather the complaints made at the office are so numerous as to prevent anything like a systematic inspection of the yards and alleys, the officers being engaged their whole time investigating the causes, oftentimes very complicated, of nuisances reported by citizens. In no case is a notice to abate a nuisance issued from this office until after the inspection and report of an officer. As this fact is not generally known, it leads to some ludicrous denials of the existence of a nuisance, when the most indisputable evidence to the contrary is in our possession. The same experience is met in the abatement of nuisances in general as in the case of tenement houses. People who complain of a nuisance are oftentimes much exercised at the apparent delay in its abatement, having no knowledge of the difficulties to be overcome before the work can be accomplished. It is not always an easy matter to get at the owner or agent of premises.

It frequently happens that the nuisance is of such a magnitude as to exceed the limits of the appropriation, in which case the matter is brought to the attention of the City Council. There are some cases examined where the imagination has much to do with the complaint, and others where the informer is responsible, and is endeavoring to shirk the responsibility. Very many complaints are made by tenants against their landlords when the occupants are wholly in fault. All of these cases have to be examined with circumspection, that no hardship or injustice be done, and it is often very difficult to determine just what to do.

HOUSES VACATED.

The number of houses and cellars ordered vacated was 56. The number actually vacated, 29. The chief causes were defective drainage, want of repair, and defective and offensive vaults. The 27 not vacated were put in proper sanitary condition before the expiration of the time given in the notice to vacate.

The work of disinfecting or deodorizing foul places was begun in June, and continued all the time until November, during which, vaults, drains, yards, lanes, alleys, passage-

ways, cellars, cesspools, vacant lots, gutters, urinals, etc., etc., were attended to.

Chloride of lime, and sometimes other disinfecting powders, so-called, are used to a small extent; but the sulphate of iron (copperas) in solution is used in very large quantities. Nine open hogsheads for this purpose are kept full of a saturated solution of copperas throughout the season. This is done by keeping about three or four hundred pounds of copperas dissolving in the bottom of the hogshead all of the time, agitating and renewing the contents daily, or often as may be required. From these tanks the liquid is taken into a large cask, mounted upon a wagon, and driven to its place of use. The best copperas is used, is bought in quantities of fifty to one hundred barrels at a time, and costs us, delivered, one and a quarter to one and three-fourths cents per pound.

By this work thousands of places are rendered inoffensive if not harmless.

Prosecutions.

The number of complaints for violation of health laws was 50; of these, 6 were made by the Inspector of Provisions. The amount of fines and costs was $569.75.

Public Urinals.

No new urinals have been built during the year. A law passed the Legislature last year, authorizing the City of Boston to erect and maintain urinals for public use in any street, way, court, etc., in the city.

In September last we petitioned your body for leave to erect these in certain places, but, although an appropriation was made therefor, we have, up to this time, received no answer to our petition.

Fish-Pedlers, etc.

Fish-peddling and grease-collecting in the streets have been attended with a less number of complaints than usual. The number licensed to peddle fish during the year was 748 The number licensed to collect grease 167. All persons licensed are required to keep their carts in a cleanly condition; and to secure this they are licensed for only one month at a time, and are required to report, with their teams, on the first of each month, at the West-end stables, there to be inspected by an officer of the Board before renewal of the license.

HIDES AND HORNS.

Places where green hides and horns are stored have been inspected frequently during the warm season, and as a rule there has been less to complain of than in former years. More strict attention is given to cleanliness in handling and storing, and in some instances there have been great improvements in the store-rooms. There are at present 18 places where green or green-salted hides are stored.

REMOVAL OF NIGHT-SOIL.

In all cases where practicable, night-soil has been removed by the odorless excavating process, and, so far as we know, the contractors have been faithful in their duty. The number of vaults emptied was 3,503.

The removal of manure from stables in the city is still attended with more or less annoyance, especially to those who reside in close proximity to the stables.

The Board of Health has restricted the business by regulation as far as it seems to be practicable under present conditions, by enlarging the opportunity for removal and restraining the loose manner of it.

The great drawback lies in the construction of the stable wherein no provision is made for loading the manure inside. Pitching stable manure upon the sidewalk or upon any street, lane, or alley, makes a nuisance to abutters which no one has a right to inflict, but which is tolerated because the stable-owner has no other place for loading. We recognize the necessity for stables throughout the city, and also the necessity of removing manure therefrom; and we believe the people about them, as a rule, appreciate the advantage, and would, as far as possible, tolerate the necessary nuisance connected with them; but that this nuisance should be reduced to its minimum is only a reasonable demand.

We would respectfully recommend that, in all cases where permits are given by the City Council for building or altering stables, a provision be made for loading manure inside. If this could be done, any other unreasonable annoyance in removing manure would be easily remedied by us, and the removal by night be properly abandoned.

SLAUGHTERING ESTABLISHMENTS.

Chap. 144 of the Acts of 1876, whereby the abattoir at Brighton was placed under the charge of this Board, prohibited the business of slaughtering within the city limits

after June 1, 1876, except at the abattoir. Prior to 1876 this Board had made a regulation affecting this business, which was published in the report of last year. The five cases of appeals from the order of the Board under that regulation, and which, at the date of our last annual report, were pending in the Superior Court, are ended, the petitions in each case having been, by agreement of parties, dismissed without costs.

Rendering Establishments.

In our last report we mentioned the efforts of the Board to prevent rendering in the city (except in certain places), the regulation made and published, and the notices served on all parties who were then known to be rendering. Two only of the parties so rendering, and served with notice, took the appeal allowed by statute. One of these cases was tried in the Superior Court, before the Chief Justice and a jury, in September last. The verdict of the jury may, by statute, alter the order, or affirm or annul it in full, and, "when accepted, it shall have the authority and effect of an original order from which no appeal had been taken." The verdict in this case annulled the order so far as it prohibited the rendering of fresh tallow, and affirmed it in its prohibition of rendering other refuse animal matter.

And this verdict was accepted. To save the time, trouble, and expense of trial in the other case (as there were nearly one hundred witnesses on the one side and on the other in the former case), we disposed of it in the same manner; some additional guarantees having been given us that the premises should be kept clear, and the business so conducted that there should be no complaint. The other parties (those who did not appeal), we believe, obeyed the order of the Board.

Public Ambulance.

The removal and care of persons injured or falling sick in our streets is a subject which has for a long time engaged our attention, but we have forborne its mention in our reports to you, because we had reason to expect a change ere this, and because the propriety of suggestions from our Board on this matter might be questioned.

We respectfully beg to state that the present method, or total want of method, in securing prompt and proper removal and intelligent aid for this class of helpless persons, is fraught with no little danger to life, and is not in keeping with the charitable institutions of our city. In time of peace, and in our civilized city, to handle broken or dislocated

bones, apoplectic or other diseased persons, with unskilled hands, without professional supervision, is generally inexcusable. To cause such person to walk, be helped, or carried to a police station, there to wait for the promiscuous aid (?) to arrive, — generally unprepared to do more than simply to "order him sent to the hospital," or else painfully subject him to what must all be done over again at the hospital or home, — is, as a rule, an injury to the patient, an unnecessary cost, and it may be a serious waste of time.

To drive such person from one part of the city to another in an open or hard-riding wagon (we have often seen them, face up, in the hot sun), or in any carriage not specially adapted for it, with fracture or disease to be made worse by every jolt or shock, with chances of sudden hemorrhage from wounded vessels, unattended by a skilled nurse or physician, is a practice too palpably wrong to be allowed for another day.

The remedy is very simple, can be quickly applied, and be attended with very small cost, by utilizing the means already on hand. Purchase an ambulance, properly fitted for carrying the sick and wounded; provide it with such medical and surgical means and appliances as experience has shown to be necessary for immediate or temporary use in emergencies; place it at the City Hospital, where there is, or should be, a good horse and harness. There are also at this hospital ten or twelve competent and discreet house physicians and surgeons, whose time is not wholly occupied, and who would be instantly on hand when needed. Connect the City Hospital by telegraph wire with the nearest police station, and it will then have telegraphic communication with all of the stations in the city. When any person is injured, or falls sick in the street, or other place requiring public aid, let him either remain on the spot, or be taken into the *nearest* building, and a telegram sent for the ambulance by the police. This, in most instances, could be done in five or ten minutes. The ambulance, with the house physician or surgeon, as may be indicated by the telegram, could be on hand in a very few minutes more, when the patient would be sure to receive prompt care, and an easy transit to the hospital; where, after treatment, he can pay his bill; or, if a charity patient, the city will have well done her simple duty to a helpless person.

VACCINATION.

Vaccination of children has been encouraged and provided for among the poor, as in former years. The City Physician's office, in the Chardon-street building, is open from 10 to 12

A. M., six days in the week, throughout the year, where, free of expense, children can be taken to be vaccinated, with animal virus, or with carefully selected humanized virus of one or at most two removes. From 2 or 3 to 50 per day avail themselves of this charity, which is performed by Dr. McCollom, assistant to the City Physician.

Several of the public schools have been reviewed by the same officer, and the unvaccinated children attended to and certificate given.

TRAMP.

The tramp, or vagabond, and the treatment he receives, require a passing notice.

During the year ending December 31, 1876, 63,000 lodgings were provided in the fifteen station-houses of our city. These persons are generally very dirty, lazy, and lawless, although some of them are merely poor.

They are permitted to stow themselves away, five or six in a cell, where only one or two can properly find room, until all the cells in these basements are filled with supperless, unclean persons, whose clothing and bodies are frequently covered with vermin. By ten or eleven o'clock in the evening lodgings in these quarters will have been found, through the kindness of the police, for a number sufficient for one to get a fair idea of the condition of the atmosphere to be breathed by all in the building throughout the night. An attempt is made on the part of the police, by scattering deodorants, to keep down the smell; but the very nature of things absolutely forbids anything like success in this direction. Standing in almost any part of the basement, any one unaccustomed to it will find himself unable to bear the smell, which is not as easily described as remembered.

They pass the night in this foul air, get up in the morning, and in their dirty condition saunter off to beg or steal through the day, or to pass on to some other locality; frequently, however, they turn up the next night at some of the police stations in the city, and the same rôle is acted over and over again, until hospital, almshouse, or prison relieves the public for a season. The question arises, cannot something be done, in a public way, to improve this class of miserable, unproductive, filthy, and not unfrequently dangerous persons in our midst?

In the first place, no person should ever be compelled, or allowed, to sleep in these underground, ill-ventilated cells.

It conduces directly to disorder, laziness, depravity, disease, and pauperism. If there is one particle of human instinct or aspiration for decency left in them, it must

surely wane or die in this wretched place, where none but gas-light ever enters to discover the actual conditions.

Should we not provide and maintain for this class of wretched humanity places of reception something like the "Casual Wards" in London, — not for criminals or drunkards, but for those who need merely a night's lodging? — a place where the vagabond can enter, be registered, receive a proper supper if needed, take a bath, and in a clean night-dress retire upon a plain but decent and wholesome bed, situated in a ward where its measured space and ventilation shall be prescribed by a competent body, or by law. Let him rise in the morning, receive his clothes, which have been so thoroughly fumigated that neither infection nor vermin can be left therein to scatter in his travels, partake of a simple yet wholesome breakfast, be ushered into a workroom, where, in some way, he shall perform three hours of faithful labor, and then take his leave.

In this way what do you accomplish? He will have changed in many cases from the wretched, dirty, and disheartened vagabond to a clean, refreshed, and encouraged man, more willing to work, and with strength to do it. The cost of such treatment would be very small, and the amount of good very great. His presence about the streets and elsewhere would be less objectionable, and his appearance in seeking occupation much more favorable.

Intoxication should be sufficient cause to refuse admittance, and a second lodging for the same person should be refused, on the ground of inviting tramps, or encouraging idleness, unless experience shall teach otherwise.

An accurate registration should be made on their admittance, which would serve to identify the tramp afterward, if required.

In this way we make him clean, strengthen, and encourage him to work, if he has any desire.

SCHOOL-HOUSES.

While money has been so lavishly expended in building, heating, and ventilating our public school-houses, rendering them models of architectural beauty and convenience, the sanitary condition of the privies and vaults connected with them seems to have been almost entirely overlooked.

The old-fashioned vaults of a century ago are still in use, and are made to accommodate the several hundred pupils attending each school.

All vaults of this character, either public or private, are invariably a nuisance. They should be abolished, and water-closets substituted wherever the drainage will permit. At

the request of teachers and others, we have made a thorough examination of a large number of these privies, and found them to be extremely offensive, not only to the teachers and scholars, but to the residents in their vicinity. The odors escaping from them pervade the school-rooms, causing nausea, compelling the teachers to close the doors and windows, to exclude the disgusting scent, which, even then, penetrates the rooms, especially when the atmosphere is warm and muggy, and the scholars are most in need of pure air from without.

The state of these privies is such that they cannot be otherwise than a nuisance, detrimental to the health of teachers and scholars.

These privies being under the charge of another department of the City Government, we have called the attention of that department to their condition, and urged upon it the necessity of taking some measures to remove this just cause of complaint.

In their present state these privies are a disgrace to the city, and should not be suffered to remain through another season.

Infant Boarding.

With a view of keeping under sanitary inspection all places at which infants are boarded, the following order of the Board was passed, November, 1876: —

Office of the Board of Health,
Boston, November 30, 1876.

All persons engaged in the business of taking infants to board are hereby notified that that the provisions of the following Act will be rigidly enforced.

By direction of the Board of Health.

C. E. DAVIS, Jr., *Clerk.*

Extracts from the Statutes. Acts of 1876.

[Chap. 158.]

An Act for the better Protection of Infants.

Be it enacted, etc., as follows: —

Sect. 1. Whoever engages in the business of taking nursing infants, or infants under three years of age, to board, or of entertaining or boarding more than two such infants in the same house at the same time, shall within two days after the reception of each such infant beyond the first two, give written notice to the Board of Health of the city or town where such infant is so to be entertained or boarded, specify the name and age of the child, and the name and place of residence of the party so undertaking its care; and such Board of Health shall have the right to enter and inspect said house and premises while said business is being carried on, and to direct and enforce such sanitary measures respecting such children and premises as it may deem proper.

SECT. 2. Any person violating any of the provisions of this act, or refusing admission to such Board of Health for the purpose mentioned in the preceding section, shall, on conviction thereof, be punished by a fine of not less than fifty, nor more than five hundred dollars.

In accordance with the provisions of this order, three parties reported themselves as engaged in taking babies to board. During the year the names of fifty infants have been recorded as boarding at these three places. There can be no question that many other parties are engaged in the same business, but in such a manner as to escape the notice of the Board. These three places have been inspected from time to time by one of the medical inspectors.

LYING-IN HOSPITALS.

Under the law relating to the licensing of lying-in hospitals by the Mayor and Aldermen, seven petitions have been referred to our Board during the year. We have in all cases carefully considered the suitableness of the hospital and the person petitioning. One has been recommended, and six have not. Those licensed have been frequently visited, to see that nothing in the general conduct or sanitary condition of the hospital is objectionable.

CEMETERIES.

The cemeteries under the charge of this Board contain about thirty-seven and one-half ($37\frac{1}{2}$) acres of land, divided as follows, viz: —

Boston proper,	Copp's Hill Cemetery,	88,800	sq. ft.
" "	King's Chapel "	19,200	"
" "	Granary "	81,900	"
" "	Central (Common) Cemetery,	60,200	"
" "	South "	75,500	"
Roxbury District,	Eustis St. "	34,700	"
" "	Kearsarge "	54,500	"
South Boston District,	Hawes "	16,800	"
East Boston District,	Bennington St. "	157,500	"
Charlestown District,	Bunker-Hill St. "	48,000	"
" "	Phipps St. "	76,740	"
Dorchester District,	North "	135,036	"
" "	South "	87,120	"
West Roxbury District,	Centre St. "	39,450	"
" "	Walter St. "	39,216	"
Brighton District,	Evergreen "	602,230	"
" "	Market St. "	18,000	"
		1,634,892	"

The amount appropriated for the care and repairs of all the cemeteries above named, except the Evergreen, was		$6,000 00

The expenditures have been as follows: —

Paid for cutting grass and keeping the paths and grounds in order, including flowers, shrubs, etc.,	$2,709 90	
Paid for repairs, fences, tombs, etc.,	2,131 53	
Paid for care of city morgue and hearse,	172 50	
Balance on hand, unexpended April 30, 1877,	986 07	
		$6,000 00

The amount appropriated for the care of Evergreen Cemetery was	$800 00	
On hand, April 30th, 1876,	417 49	
Received from sale and care of lots, graves, etc.,	1,252 00	
		$2,469 49

The expenditures were as follows: —

Paid for care of cemetery, grading new lots, graves, walks, etc.,	$2,266 64	
Balance on hand, April 30th, 1877,	202 85	
		$2,469 49

It has been the aim of the Board to expend as little money as possible upon these grounds, and at the same time keep them in a creditable condition.

The time is fast approaching, however, when a much larger yearly expenditure will be required for repairs on walls, fences, monuments, etc., which are fast going to decay. We believe the time has already arrived when the cemeteries within the limits of the city proper should be closed against further burials, not only as a sanitary measure, but with the view of eventually removing the remains of the bodies which have been buried therein to some more suitable locality in the suburbs.

The following estimate of the value of the lands in the Chapel and Granary grounds is estimated upon the valuation of land in their vicinity: —

Value of Chapel grounds,	$300,000 00
Value of Granary grounds,	900,000 00
Total,	$1,200,000 00

If they could be sold at this valuation, or taken by the city for public use, say for the extension of City Hall or a Court House, the amount would purchase a larger tract of land in some outlying district or neighboring town, put it in proper condition, and still leave a surplus, the income of which would, if properly invested, be more than amply sufficient to keep the grounds perpetually in order.

Sooner or later (it may not be in this or the next generation), the remains of those buried in these cemeteries will be removed, and the ground will be used for other purposes. There can be no better time for such a movement than when some of the descendants of those who were buried therein are living, and can see that the removal is properly accomplished.

INSPECTION OF PROVISIONS.

The inspection of provisions of all kinds has been faithfully conducted by the inspector, John H. Terry, who has filled the office with credit to himself, and fidelity to the city, for the last three years.

This is an important service, and one whose necessity is not likely to be over-estimated. Every resident of our city is likely to be favorably or unfavorably affected, according to the intelligent or unintelligent, faithful or unfaithful service of this officer.

It is his duty to be vigilant and active in all parts of the city, to examine meat, vegetables, fruit, fish, shell-fish, and provisions of all kinds, and to seize and destroy them whenever found to be tainted, diseased, corrupted, or unwholesome. For this purpose he has authority, under statute law, to enter into all buildings or enclosures within the city where animals, meats, fish, vegetables, produce, fruits, or provisions of any kind are kept, stored, or exposed for slaughter or sale.

His seizures are subject to the approval of the Board of Health when an appeal in writing is made by the owner of the property at the time of the seizure.

The report of this officer to the Board of Health for the year ending April 30, 1877, shows the following articles to have been seized and destroyed by him as unfit for human food: —

5,071 lbs. fresh beef.	67 veals.
60 lbs. corned beef.	244 lbs. veal.
75 lbs. beef hearts.	3 saddles.
42 beef livers.	1 leg.
12 ox-tails.	1 lamb.

25½	lbs. mutton.
458	lbs. fowl and chickens.
1,088	lbs. turkey.
150	lbs. mackerel.
250	herrings.
150	lbs. fish.
50	lbs. smelts.
35	doz. eggs.
29	bbls. apples.
32	crates apples.
8	bushels apples.
5	crates peaches.
5	bushels peaches.
6	crates pears.
1	bushel pears.
8	doz. bananas.
1	bbl. 10 gals. oysters.
10	bbls. turnips.
6	doz. cantelopes.
6	bushels pease.

37 different lots of green apples, varying from 2 to 10 quarts, each destroyed.

9 persons were advertised under the statute law.

6 persons were prosecuted in Court.

Fines amounted to	$165 00
Costs,	$41 10
Total fines and costs,	$206 10

By an act of the Legislature (Chap. 144 of the Acts of 1876) this Board was authorized to appoint an inspector for the abattoir, whose duty it should be to see that the rules and regulations of this Board for the conduct of the business of the association are fully obeyed, and also to see that none but healthy animals are slaughtered.

Authority was given said inspector to enter any building or premises of said association, for the purposes of examination, inspection, and seizures of any meat or animals unfit for human food. His salary was to be fixed by the City Council.

This law went into effect May 17, 1876, and on May 24 following we appointed to this office, without pay, John H. Terry, who made daily visits to the association buildings and premises throughout the year with a fair result.

After a year's experience the Board concluded that the public interest would be better served by placing an inspector permanently at the abattoir, and on April 1, 1877, the same officer, having been relieved from other duties, was ordered to devote his entire time at this place, and the following petition was sent to the City Council: —

Office of the Board of Health,
Boston, March 29, 1877.

To the Honorable the City Council of Boston: —

Gentlemen, — By an Act of the Legislature of 1876, entitled "An Act to amend an Act to incorporate the Butchers' Slaughtering and Melting Association in Brighton," section 4, chapter 144, the Board of Health is authorized to appoint one or more inspectors to see that the rules and regulations for the conduct of the business of the association

for the time being are fully obeyed by said association and their tenants, and to see that none but healthy animals are slaughtered; the salary or salaries of said inspector or inspectors to be established by the City Council.

This appointment has now become necessary, and the Board of Health is desirous of making the same as soon as the salary to be paid said inspector is determined.

Respectfully submitted,

S. H. DURGIN,
Chairman.

No concurrence has yet been reached in the Board of Aldermen, owing to a question of the need of such officer, although it is confidently expected that they will soon agree upon a salary for this officer.

It should not be inferred from the discussion of this subject that we have in the Brighton Abattoir Association gentlemen who would more willingly put upon the market immature or unwholesome meats than those found elsewhere in the same business. Most of the gentlemen of this association, with whom we have come in business contact, we believe to be honorable men, who would not fraudulently impose unwholesome meats upon the people of our city.

But that there are those who, through avarice or ignorance, do cause or allow sick or immature animals to be slaughtered and prepared for our markets, is not less true. Nor is it strange that they should so strongly oppose the placing of an inspecting officer there to secure the reasonable demands of our people.

There are slaughtered annually at the abattoir about 74,000 cattle, 274,000 sheep, and about 8,000 calves. Statute law prohibits slaughtering within the city limits, except at the abattoir.

By the report of the inspector it appears that he condemned and destroyed at the abattoir during the year ending April 30, 1877, 2,840 lbs. of beef and 2 calves. During the month of April just past, while permanently employed there, he found it necessary to seize and destroy 990 lbs. beef.

It is safe and reasonable to predict that, with the care now used at the abattoir and the vigilance of the inspector now permanently stationed there, very little meat in an unwholesome condition will be likely to leave the premises of the association.

The Regulations, revised and adopted by the Board of Health, in February last, are hereto annexed: —

CITY OF BOSTON.

OFFICE OF THE BOARD OF HEALTH,
BOSTON, Feb. 21, 1877.

In accordance with section 5, chapter 144, of the Acts of 1876, the following regulations have been adopted by this Board for the conduct of the business at the Abattoir of the Butchers' Slaughtering and Melting Association; and strict compliance therewith, both on the part of the Association and of its individual tenants, will be insisted on by the Board.

By order of the Board of Health,
C. E. DAVIS, JR.,
Clerk.

REGULATIONS.

1. Only animals in health shall be slaughtered for food.

Dead or diseased animals, when received in ordinary consignments of live-stock to persons slaughtering on the premises, may be prepared for rendering in the basements, and thence immediately transferred to the rendering-tanks and rendered.

2. No unnecessary pain shall be inflicted on any animal.

An ample supply of food and water must be served to animals at seasonable times.

3. All parts of animals slaughtered on the premises shall at once be put in the places provided for their reception; the offal, tallow, heads, feet, blood, hides, and tripe shall all be dropped through those openings in the floor which are specially designed to receive them. While the killing is in progress, the blood-hole in the trough shall be kept open, and the water-hole closed; and when the slaughtering is finished for the day the water-hole shall be opened and all the other holes closed; and the floor and walls of the slaughter-house shall be thoroughly scraped, washed, and cleaned.

The close-pens, cooling-rooms, loading-sheds, stables, and all other parts of the premises, shall be kept clean and in orderly condition.

4. No parts of animals slaughtered elsewhere shall be brought to the premises, except by special permission in writing of the Board of Health of the City of Boston.

Permission to bring blood or offal (except fresh heads and feet) will not be given in any case.

5. The Corporation shall provide, in the basement, a sufficient number of properly-constructed wagons, to receive the offal, tallow, heads, feet, blood, tripe, and hides. One of said wagons shall be constantly kept under each opening in the floor while killing is going on, and until the slaughter-house floors are cleaned, after the killing.

All parts of the slaughtered animals which are to be rendered, dried, or salted on the premises, shall be so treated without delay.

All hides and skins, tallow or tripe, belonging to any tenant of the Corporation, who desires to have them removed from the premises before being rendered, salted, or cured, shall be so removed at once. In no case will such material be suffered to remain more than twelve hours before removal.

6. The Corporation shall render all tallow produced on the premises by any person hiring or occupying any part thereof, whenever such person shall request it, and shall also render all tallow that is not removed from the premises as provided in the last section of the preceding regulation. And after such rendering, the Corporation shall return to each person his proportionate share of such rendered tallow,

unless some other disposition of the same shall be mutually agreed upon. And all hides and skins not removed as provided for in the last section of the preceding regulation shall be salted by the Corporation and returned to the owners. And the Corporation shall receive for the rendering and salting provided in this regulation, such compensation as shall from time to time be fixed by the directors, subject to the approval of the said Board of Health. But this regulation shall not prevent the Corporation from buying from any tenant his crude tallow, or his hides, skins, and tripe, at such price as may be agreed upon.

7. The Corporation shall at all times keep the basements of the slaughter-houses thoroughly washed and cleaned; and shall provide that no blood, offal, or manure shall at any time enter the sewers.

The rendering-house shall be kept at all times clean and in good order, and none of the gases from the rendering-tanks, driers, or condensers shall be permitted to escape into the open air or into the sewers.

Manure from cattle-pens, close-pens, and stables, and from the stomachs and intestines of animals slaughtered, shall be removed from the premises as often as may be necessary to ensure cleanliness; and all the grounds of the Corporation must be kept in an orderly condition.

8. The Corporation shall render the heads and feet of all animals slaughtered on the premises, and shall pay for each set of heads and feet such price as the directors may fix, from time to time, subject to the approval of the said Board of Health, unless the parties shall agree upon the price.

9. All blood, intestines, and other offal, which are the property of the Corporation, shall be rendered while fresh, and all scrap and blood shall be dried immediately.

10. The Corporation shall furnish the necessary hot and cold water for cleaning the meat and the slaughter-houses, and also water for the stables and stock-yards.

In the use of the machinery and water, the tenant shall exercise all reasonable care to avoid breaking the machinery, wasting the water, and injuring the buildings.

11. All leases shall be executed in the name of the Corporation, and shall contain a condition that the lessees will conform to the foregoing regulations, and to such regulations as shall hereafter be made by the Board of Health of the City of Boston, or by the Corporation with the approval of said Board of Health.

Any person engaged in slaughtering or other business on the premises of said Corporation, who shall violate any of the regulations of said Board, shall be liable to a fine of not less than twenty nor more than five hundred dollars. Chap. 365, Acts of 1870.

ADULTERATIONS.

The adulteration of articles of food and drink has been examined, and the results published by our State and City Boards of Health, from time to time, ever since they were established.

Others have also examined into and published accounts of these iniquitous and fraudulent adulterations.

So patent has this fraud become that scarcely any investigation can be made into even the commonest articles of food

and drink, which does not reveal more or less fraud in the shape of a shameful admixture of some worthless or dirty material, and in many instances there are found the most deadly poisons.

Much money has been spent in this and other cities in the examination of articles and publishing the results, but so far as we can judge very little if any good has resulted therefrom in the way of diminishing the abominable practice.

The statute law concerning this matter deals only with the manufacturer (who adulterates with substances injurious to health), and reads as follows, under Chapter 26 of the General Statutes: —

Chapter 166, General Statutes.

Section 3. Whoever fraudulently adulterates, for the purpose of sale, bread or any other substance intended for food, with any substance injurious to health, shall be punished by imprisonment in the jail, not exceeding one year, or by fine not exceeding three hundred dollars; and the articles so adulterated shall be forfeited, and destroyed under the direction of the court.

Sect. 4. Whoever adulterates, for the purpose of sale, any liquor used or intended for drink with *cocculus indicus*, vitriol, grains of paradise, opium, alum, capsicum, copperas, laurel-water, logwood, Brazil wood, cochineal, sugar of lead, or any other substance which is poisonous or injurious to health, and whoever knowingly sells any such liquor so adulterated, shall be punished by imprisonment in the State prison not exceeding three years; and the articles so adulterated shall be forfeited.

The Board of Health determined to make a new departure and try the means offered by Section 3.

Opportunities were accordingly sought, and 20 specimens of candy were purchased from 17 different manufacturers in the city, who, when selling the candy, stated that it was of their own make, and that they sold no other.

These specimens of candy were taken from the place of purchase to the office of the Board of Health, where they were marked for identification, and then delivered in separate lots into the hands of the chemist. Examination showed that over one-third of these manufacturers used chromate of lead (chrome-yellow) in their colored candies, — a substance well known to be a deadly poison in very small quantities. Several cases have been reported elsewhere where death resulted in from 24 hours to 5 days from innocently eating substances containing only between one-fifth and one-sixth of a grain of chromate of lead.

In 1873 H. B. Hill analyzed for the Massachusetts State Board of Health 77 samples of candy, including both white and colored, and of this number 36 contained chromate of lead; of 40 samples which were colored yellow, orange, or green, 36 contained this active poison.

Chromate of lead is used as a pigment, and gives the candy a light-yellow color, and has the advantage of being cheap.

The report of the chemist on the analysis of 20 samples of candy is herewith given in full: —

HARVARD MEDICAL COLLEGE, CHEMICAL LABORATORY,
BOSTON, May 1, 1877.

CHAIRMAN BOSTON BOARD OF HEALTH: —

Dear Sir, — Below please find my report of the analysis of specimens of candy received from you at various times.

As a rule, only those adulterations which are injurious to health were sought for and noted. In some of the specimens, however, I found a large amount of starch.

No. 1 was a specimen of white peppermints, which, on being dissolved in water, deposited a heavy white amorphous sediment, which was slightly soluble in water. This on analysis proved to be sulphate of calcium (plaster of Paris), and, upon estimating its amount, the peppermints were found to contain a little more than ten per cent. by weight of this substance, which, if taken continuously, is certain to prove very injurious.

No. 2 consisted of mixed red, yellow, and white pieces, which were found to be free from any injurious adulteration. The red was tested for arsenic, which might be present in the aniline color, and for mercury, which would be present if the pigment used were vermilion. The yellow was tested for lead, which would be present if chrome-yellow had been the pigment used. These poisons were not detected.

No. 3, marked "15 cents per lb.," consisted of mixed red, brown, yellow, and white pieces.

The white conversation lozenges contained two and a fourth per cent. of starch. The peppermints were pure.

The yellow pieces, on being treated with water, left an abundant deposit, which consisted of starch granules and yellow amorphous particles. The yellow pigment proved to be chrome-yellow (chromate of lead), but as the amount of yellow candy was so small (3½ grm.) no quantitative estimation was made.

No. 4 consisted of red and white sticks, yellow, red, and white drops. No injurious adulteration was detected.

No. 5 was a duplicate of No. 3; chromate of lead was detected in the yellow pieces in the proportion of about 3 grains to the pound of candy. These pieces were also largely adulterated with starch.

The lead in the chrome-yellow was converted into the form of the iodide of lead, the characteristic crystals of which I have preserved to exhibit in court.

No. 6 consisted chiefly of large yellow cubical pieces, which mostly dissolved in water, leaving but little sediment. A part of the coloring matter dissolved in water, and a part was insoluble. This latter consisted of chrome-yellow to the extent of about ¾ of a grain to the pound of candy.

No. 7 consisted chiefly of white conversation lozenges, which were adulterated largely with starch. There were two yellow ones, one of which contained a considerable amount of chrome-yellow. The other one contained about 1-30 grain of chromate of lead, or about 6½ grains to the pound of yellow candy.

No. 8 consisted chiefly of yellow and red oval pieces and yellow lozenges. There were also some green pieces. The yellow pieces contained about 1½ grains of chrome-yellow to the pound. The green consisted of a mixture of Prussian blue and chrome-yellow.

No. 9 was a mixture of white, yellow, pink, and red pieces. No injurious adulteration was detected.

No. 10 and *No.* 20 were from the same manufactory. They consisted of mixed white, red, and yellow pieces. No injurious adulteration was detected.

No. 11 consisted of white, yellow, brown, pink, and red pieces. No injurious adulteration detected.

No. 12 consisted of white, red, brown, yellow, and orange pieces. No injurious adulteration. The orange pigment consisted chiefly of oxide of iron.

No. 13 was an imitation of a violin. The strings were made of a yellow color, and other portions of a green and pink color. The yellow was not a poisonous one, although its exact nature was not determined. The green was a mixture of the yellow and Prussian blue.

No. 14 consisted of yellow, red, and white pieces. Nothing injurious was detected.

No. 15 was not examined on account of a lack of time, and because it was not of Boston manufacture.

No. 16 was a mixture of yellow, red, brown, pink, and white pieces. This specimen was quite largely adulterated with starch; but nothing of a poisonous nature was detected.

No. 17 was a yellow, red, and white mixture. No poisonous adulteration detected.

No. 18 consisted of green, yellow, and white pieces, to imitate various kinds of fruit; also red and white almonds and drops. About 1-20 of a grain of chromate of lead was obtained from a single piece. The green color was obtained by mixing the yellow with Prussian blue, which is harmless.

No. 19 was from the same manufactory as No. 7, but bought at a later date. The yellow pieces had a very different color from the yellows in No. 7. The yellow pigment in this specimen did not consist of chrome-yellow.

It will be observed, from the above, that the chromate of lead was the only poisonous substance detected, with the exception of the gypsum in No. 1. This substance, like other lead compounds, is so poisonous, even in the most minute doses, that its use in coloring articles intended for food should be prohibited. Fatal cases of acute poisoning in children have been reported, and its power to produce chronic lead-poisoning is, of course, as great as that of any lead compound. As an instance of this power, it may be well to mention the following case in which lead colic and other symptoms of lead-poisoning appeared among the inhabitants of a village in England. These symptons were traced to the river water, which was used by the inhabitants for drinking and cooking purposes, and which upon analysis was found to contain only one part of carbonate of lead in 500,000 parts of water, this lead being derived from a lead mine which had been recently opened on the bank of the river a short distance above the village. Granting that a person drank of this water one gallon daily, the amount of lead introduced into the system could not be more than three quarters of a grain per week.

Very respectfully,

Your obedient servant,

EDWARD S. WOOD.

Those cases where the poisonous substance has been found in the candy have been prepared for court, and we are now awaiting its action.

SMALL-POX.

From May 1 to Dec. 27, 1876, no case of small-pox was known to us in the city. From Dec. 27, 1876, to April 30, 1877, five cases were reported, from the following places: 33 Decatur street, C. D.; 49 Richmond street; 65 Eastern avenue; —— Canal street, C. D.; and Whitney street, in the Highlands.

Six cases in all,— three males and three females.

One died, and five recovered.

Since Nov. 27, 1875, when the Marcella-street Hospital was surrendered to the city, we have been without a hospital on the main land to which we could send such patients, and we have been subjected to the embarrassment of sending them to the island, when they were able and the weather would permit, and they could not be sufficiently isolated at home.

In November, 1875, an order was passed by the City Council, authorizing the Board of Health to purchase, with the approval of His Honor the Mayor, a site with buildings for a small-pox hospital.

In response to the above, the Board of Health has been diligent in its search for some location where the least objection could be made, and the best hospital requirements found. It has proved to be anything but a pleasant undertaking, or one of easy accomplishment, to secure any place where the small-pox patient — the most pitiable, dejected, and forlorn — can be taken without subjecting the Board of Health to the severest criticism of land-owners in the vicinity.

There is no spot on the main land which does not lie in contact with some other; and so long as this condition remains we shall find objections in locating a small-pox hospital. We have seen and favorably considered several sites, but failed to secure them. It must be within the limits of the city, and should be so located as to admit of good drainage, and, in all respects, be surrounded by the best sanitary conditions.

We have now in view one which we believe will be approved by the Mayor, can be purchased considerably within the appropriation, and is so isolated as to render danger to neighbors or street travel altogether out of the question.

But, above all, it is a high, dry, and delightful spot, where all that can be desired, in a sanitary sense, can be obtained, and the unfortunate victim to this dreaded disease placed under the most favorable conditions.

Negotiations are now in progress which we believe will

put us in possession of these accommodations, when, upon notification of a case of small-pox, we can at once secure its removal to hospital without reference to the weather, renovate the premises left, and, in all respects, as promptly secure the safety of the patient and provide against the spread of the disease, as before the surrender of the Marcella-street Hospital.

Mortality Statistics for 1876.

The work of recording various essential facts concerning the deaths occurring in the city has been continued. We cannot help regarding this as a very important department of sanitary administration, because the registration of deaths affords the best practicable guide for our work. It has been repeatedly demonstrated that early and direct information concerning deaths has been the means of disclosing conditions inimical to life and health, and of initiating effective measures for abating or removing those conditions.

There are certain diseases included among the recorded causes of death, whose development and progress it is the especial duty of this Board to oppose. These diseases are termed by some, the "Zymotic" group; by others, the "filth diseases;" and by others, the "preventable" diseases. Then, again, facts with regard to the local distribution of such diseases as prove fatal are of paramount consequence in the absence of a systematic registration of diseases in advance of their termination, fatal or otherwise. The influence of age and season on mortality-rates is likewise important. We shall consider these various relations, so far as the mortality-registration for the year 1876 has afforded us material for so doing.

During the year ending Dec. 31, 1876, there were 8,253 deaths recorded in this office.*

Assuming that the annual rate of increase in the population of the city is the same in the present quinquennial census period, 1875–1880, as in the five years previous to the last census, 1870–1875 (and any other estimate of our population is necessarily speculative and based at the best upon shrewd guesses), the people of Boston, in the year 1876, numbered 352,758.

The mean rate of mortality per 1,000 of the living in 1876

* In all the following remarks upon the vital statistics of the city for 1876, the record of still-births is not taken into account.

was, therefore, 23.39. That is to say, to every 100,000 persons living, there were 2,339 who died.*

It is apparent that the mortality must have been unequally distributed. It does not require special acumen to determine that some parts of Boston are more favorable to longevity and vigorous health than others. Hence it will be instructive to make an analysis of one year's mortality record, with a view to ascertain the relative salubrity of different parts of our municipal territory.

For the purpose of comparing the various sections of the city upon a basis of comparison more distinctive than the ward-lines afford, the city's area has been divided into nineteen sanitary districts, each having tolerably well-defined characters as to population, soil, and quality of inhabitants. These districts are as follows: —

I. East Boston, above Porter street: mostly high ground, well drained; inhabited by a prosperous people of the middle class. Population, 14,357.

II. East Boston, below Porter street: low ground; in some parts densely inhabited, with many blind alleys, tenement houses and wet cellars; foreign-born predominate. Population, 15,909.

III. Charlestown: a range of hills with territory sloping to water, north and south; generally well drained; inhabitants nearly equally divided between native-born and foreign-born. Population, 34,606.

IV. The "North End," east of Salem street and north of Prince street: densely inhabited with an improvident population crowded in tenement houses. Population, 18,202.

V. The "Old Mill Pond," a section of which Haymarket Square is the centre: filled territory and poorly drained; inhabited by lower classes in insanitary dwellings. Population, 12,840.

VI. Leverett-street District: inhabited by lower and middle classes, upon poorly drained soil, some of it filled land; not specially overcrowded. Population, 12,488.

VII. Beacon Hill: high land, good drainage, excellent class of dwellings and inhabitants, except in a limited area upon the northern slope. Population, 23,741.

VIII. The "Back Bay," north and south of Commonwealth avenue, and west of Arlington street: exclusively "made

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* The following statement of mortality-rates for 1876, gathered from reliable sources, will afford an opportunity of comparing Boston with other cities: —

London	22.2
New York	27.46
Philadelphia	22.88
Brooklyn	24.31
Chicago	20.41

land," but inhabited by an excellent class, in modern expensive dwellings. Population, 14,287.

IX. The "South Cove": in all respects, as regards soil, drainage, dwellings, and people, an unhealthy district. Population, 15,310.

X. South Boston, below E street: inhabited densely by mechanics and laborers, largely foreign-born; drainage fair. Population, 22,365.

XI. Dorchester Heights and City Point: high, natural territory, overlooking the harbor and exposed to the free action of uncontaminated winds; soil sandy and well drained; inhabitants thrifty; not crowded. Population, 19,296.

XII. Washington Village: low and in parts "made land;" people of the middle and lower classes; drainage fair. Population, 14,216.

XIII. The territory between the Boston and Albany railroad and Milford street, embracing the recently raised Suffolk-street section and the district in which are Seneca street, Rochester street, and Oswego street: mostly "made land;" occupied by a mixed Irish and German population; drainage good in the newer territory, very bad in the other. Population, 15,098.

XIV. "Boston Neck," between Milford and Camden streets, and east of Warren and Columbus avenues: thickly settled with thrifty inhabitants, in good dwellings; territory too low for good drainage in some parts. Population, 27,621.

XV. The Ruggles-street District: low, poorly filled territory, badly drained, and inhabited by an unthrifty class, mostly foreign-born, and indifferent to measures for promoting health. Population, 31,713.

XVI. The territory upon and around Mount Pleasant and Mount Warren, in Roxbury: high, well drained; inhabited by an intelligent and prosperous people. Population, 27,727.

XVII. West Roxbury: sparsely settled, outlying territory, approaching a rural character. Population, 12,699.

XVIII. Dorchester: much like the last. In many parts the water service has prematurely gone before the sewers. Population, 13,899.

XIX. Brighton: rural in character. Formerly objectionable on account of its numerous slaughter-houses, but now in most respects desirable for residences. Population, 6,387.

The population of these districts has been estimated upon the basis of the census of 1875; it is presumed, as in the case of the entire city, that the rate of increase has continued

uniformly in these subdivisions. At all events, it is believed that the estimates here given are a close approximation to exactness.

The following table, showing the mortality rates for 1876 in these several districts, presents many suggestive contrasts. The computations do not include the deaths that occurred in large hospitals and in public institutions, although these latter are given in the mortality of the city at large. To add to the deaths legitimately assignable to the district in which the City Hospital happens to be placed, the deaths that occurred in that large charity, or to give Dorchester the credit of the mortality occurring in St. Mary's Infant Asylum, would seriously impair the conclusions to be derived from such an analysis as we propose, and modify the contrasts to be observed in the mortality-rates of the various districts.

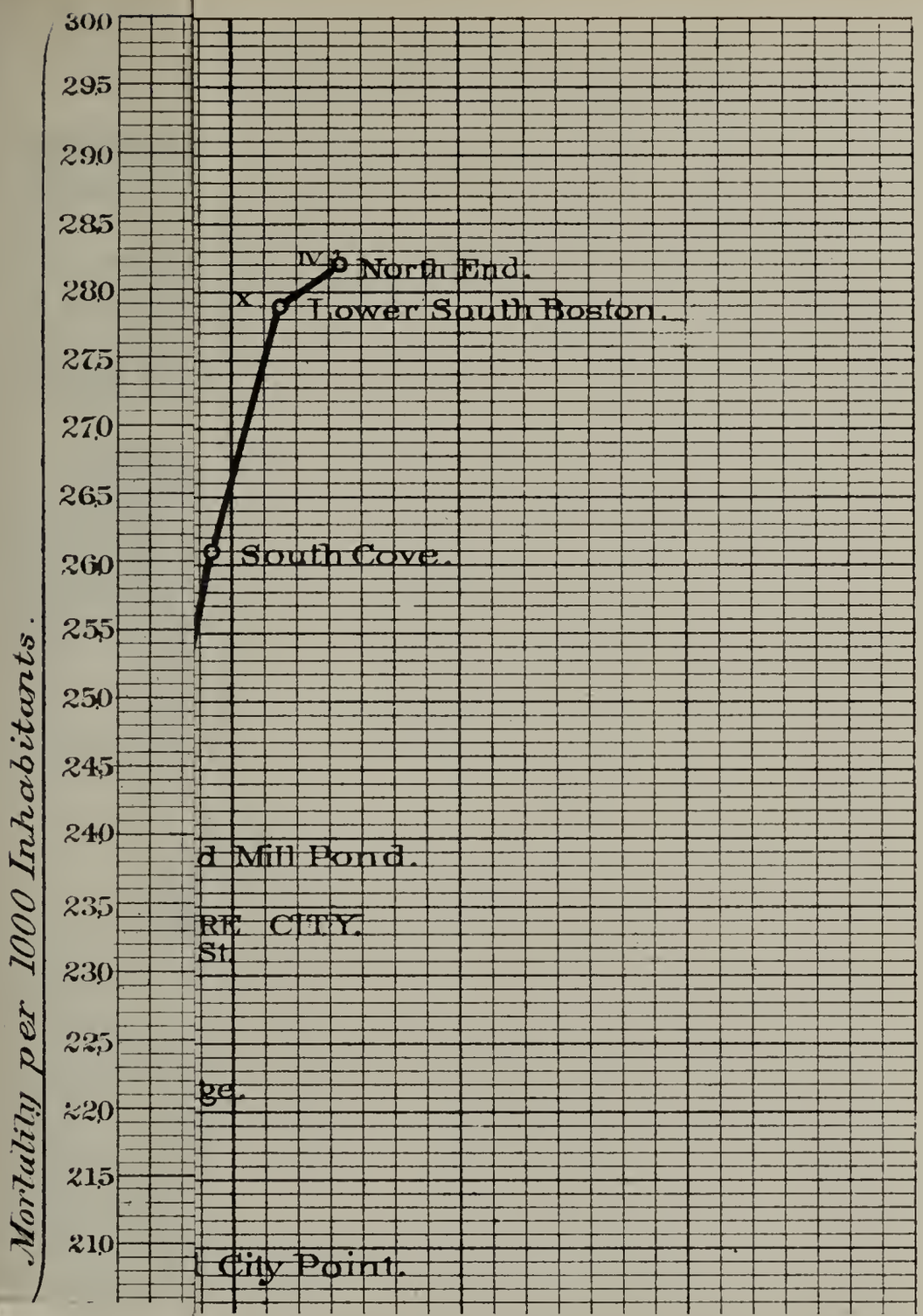
DISTRICTS.	Estimated Population, July, 1876.	Deaths. (Deaths in Institutions excepted.)	Death-rate per 1,000 living.
I. Upper East Boston	14,357	255	17.7
II. Lower East Boston	15,909	315	19.8
III. Charlestown	34,606	693	20.0
IV. North End	18,202	514	28.2
V. Old Mill Pond	12,840	307	23.9
VI. Leverett Street	12,488	291	23.3
VII. Beacon Hill	23,741	450	18.9
VIII. Back Bay	14,287	201	14.1
IX. South Cove	15,310	399	26.1
X. Lower South Boston	22,365	626	27.9
XI. Dorchester Heights and City Point	19,296	403	20.9
XII. Washington Village	14,216	317	22.3
XIII. Chapman and Rochester Streets	15,098	293	19.4
XIV. Boston Neck	27,621	450	16.3
XV. Ruggles Street	31,713	707	22.3
XVI. Mounts Pleasant and Warren	27,727	569	20.5
XVII. West Roxbury	12,699	224	17.6
XVIII. Dorchester	13,899	294	21.2
XIX. Brighton	6,387	101	15.8
Entire City	352,758	8,253	23.4

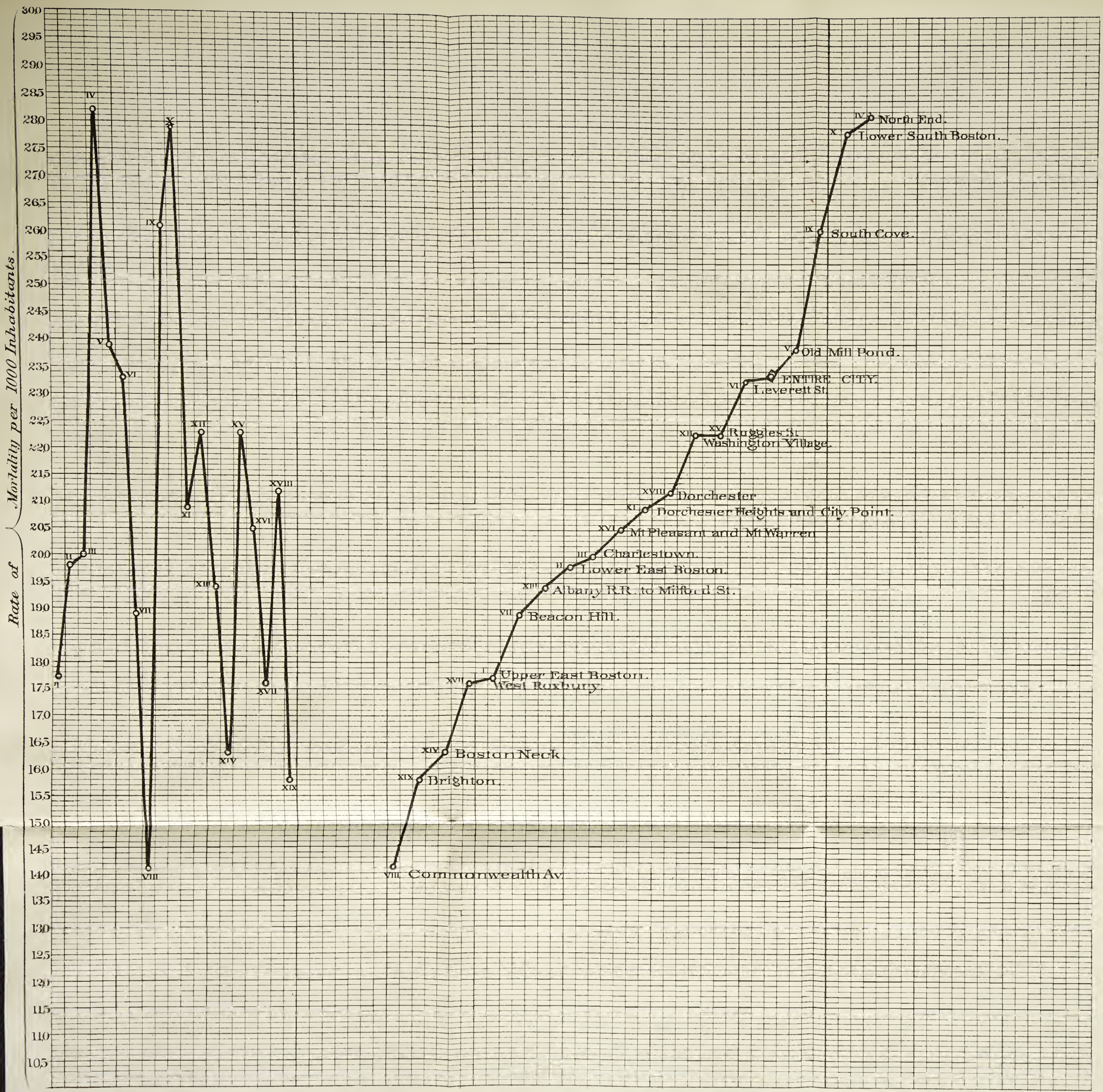
The comparison which the table affords is made more striking by means of the chart. This shows, in the tracing

at the left, the death-rates of the various districts in their numerical order, and gives an idea of the different degrees of wholesomeness in sections immediately adjacent; in the tracing on the right the ascending scale of the comparative rates is exhibited, beginning with the lowest, 14.1, that of the Back-Bay District, and ending with the highest, 28.2, at the North End. It is to be remarked of the district on either side of Commonwealth avenue that the following factors are to be considered among the determining elements of its low death-rate: (1.) The people living there are wholly of the prosperous class, intelligent, solicitous of the health of their families, able to take the best measures for the care of the sick and to prevent the occurrence of illness; (2.) There is a comparatively small proportion of infants and children in the population here; (3.) Servants, who comprise a considerable part of the population, go to their former homes or to hospitals when they are taken sick, and thus, while counting to add to the number of the living in one section, in the event of their death increase the death-rate in another section; (4.) There is an annual migration of many of the people, during the sickly midsummer season, from their city residences to the country. But, admitting all these modifying conditions, we still are of the belief that due allowance for them would not alter the place which this section of the city has in the comparative scale of mortality rates for 1876.

It is evident, moreover, that besides local characters as regards filth, there are in the districts showing a high death-rate other conditions in operation in marked contrast with those pertaining to districts with a low death-rate. The people living at the North End, in the lower section of South Boston, and around the Old Colony railroad station, are, in general, of the impoverished, ignorant, unthrifty class, careless of moral and physical health, overcrowded in tenement houses, and having no special solicitude concerning public or personal hygiene. There is a superabundance of the infant element in the population. Many of the servants and other employés who contribute to the living population of more wholesome and favored districts are drawn from these sections, whither they return in time of sickness, and whence they are buried in case of death.

It is the progressive work of education and of philanthrophy, as well as sanitary administration, to make the upper extremity of this ascending scale of local mortality rates approach, from year to year, nearer and nearer to the lower point; to make such death-rates as 26 to 28 to the 1,000 the rare exception; to modify social, territorial, and intellectual conditions, so that the general city death-rate shall be determined, not by a few districts whose rate of


Mortality per 1000 Inhabitants.
300
295
290
285
280
275
270
265
260
255
250
245
240
235
230
225
220
215
210
IV. North End.
X Lower South Boston.
South Cove.
d Mill Pond.
RE CITY.
St.
ge.
City Point.


Rate of Mortality per 1000 Inhabitants.
300
295
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110
105
North End.
Lower South Boston.
South Cove.
Old Mill Pond.
ENTIRE CITY.
Leverett St.
Ruggles St.
Washington Village.
Dorchester
Dorchester Heights and City Point.
Mt Pleasant and Mt Warren
Charlestown.
Lower East Boston.
Albany R.R. to Milford St.
Beacon Hill.
Upper East Boston.
West Roxbury.
Boston Neck.
Brighton.
Commonwealth Av.

HELIOTYPE.

mortality is greatly in excess of the average, but by many districts presenting an approximation to uniformity. It is not to be expected that Beacon Hill and the South Cove will ever become identical in point of healthfulness; but it is to be considered as practicable that the contrast between the rates at which the people of the two sections die shall be greatly lessened.

Seasons. — The next table gives the mortality in each month of the year 1876, with the percentage of the whole mortality for each month, and a computation of the annual deaths to each 1,000 of the living in each month. Similar statistics are given also for the four quarters of the year.

Deaths at Different Seasons, with Percentages and Rates.

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	The year.
Numbers	807	714	727	680	587	541	871	856	647	613	541	669	8,253
Percentages	9.79	8.65	8.81	8.24	7.11	6.55	10.55	10.37	7.84	7.43	6.55	8.11	100.
An. death-rate per 1,000	27.4	24.3	24.7	23.1	19.9	18.4	29.6	29.1	22.0	20.9	18.4	22.8	23.4
Numbers	2,248			1,808			2,374			1,823			8,253
Percentages	27.24			21.91			28.76			22.09			100.
An. death-rate per 1,000	25.5			20.5			26.9			20.6			23.4

Perhaps the most instructive feature of this table is in the numbers giving the death-rate. These show in each month and in each quarter what the death-rate for the entire year would be if the deaths in each month and quarter were multiplied by twelve and four respectively. Thus, if there had been in each of the eleven months after January 807 deaths, the death-rate for the year would have been 27.4 per 1,000, and so on. We are thus enabled to see that May, June, and November were the seasons of least mortality, and that July and August, as in all former years and all other cities, in America at least, give the maximum death-rates.

It will be interesting in this connection to see if there is any relation directly traceable between the figures given in the foregoing table and the weather observations, as recorded at the Signal Office at this station. The following table gives the weekly averages of meteorological conditions, with the total number of deaths registered each week: —

Weekly Means of Temperature, Humidity, Velocity of Wind and Rainfall during the Year 1876, *as observed at the Signal Office, Boston, with the Total Number of Deaths recorded in each Week.*

Week Ending.		Temperature.			Humidity. (Saturation being 100.)			Wind. Miles Travelled.	Rainfall. (In inches.)	Deaths Registered.
		Mean.	Max.	Min.	Mean.	Max.	Min.			
January	1	32.4	64.	9.	73.3	100.	48.	2,007	0.17	172
	15	24.7	55.	5.	67.9	100.	43.	2,325	0.40	179
	22	35.4	58.	13.	78.0	100.	44.	2,367	0.47	176
	29	29.1	51.	9.	81.4	100.	46.	1,751	0.81	218
February	5	19.0	39.	. . .	72.3	100.	46.	2,167	0.87	177
	12	37.0	52.	4.	79.9	100.	33.	1,717	0.85	177
	19	33.1	56.	16.	75.6	100.	39.	2,595	2.47	179
	26	19.6	40.	-6.5	66.7	100.	47.	2,576	0.09	152
March	4	25.1	43.	12.	78.3	100.	39.	1,667	0.26	191
	11	40.1	68.	23.	78.3	100.	43.	2,090	0.07	164
	18	26.1	38.	7.	75.7	100.	48.	2,560	0.57	171
	25	30.1	53.	5.	71.1	100.	34.	2,499	3.94	149
April	1	39.3	61.	29.	67.1	100.	39.	2,326	2.61	158
	8	37.4	57.	28.	70.4	100.	29.	2,540	2.78	145
	15	47.6	76.	24.	58.8	100.	27.	2,032	. . .	193
	22	45.7	62.	33.	64.1	100.	44.	1,947	0.21	164
	29	43.1	61.	34.5	66.5	100.	18.	1,688	0.17	143
May	6	45.1	61.	33.5	73.8	100.	34.	1,852	0.34	148
	13	50.6	80.	42.	82.2	100.	39.	1,241	1.21	116
	20	54.4	71.	40.	56.3	100.	27.	1,454	0.32	149
	27	60.3	85.	40.5	60.2	90.	24.	1,684	0.92	133
June	3	59.	86.	42.5	64.7	100.	35.	1,569	0.16	123
	10	63.4	86.	48.5	76.8	100.	42.	1,499	0.46	121
	17	66.2	89.	55.	82.7	100.	46.	1,331	0.30	111
	24	71.6	88.	56.	68.2	100.	40.	1,841	0.12	123
July	1	74.9	90.	63.	64.0	90.	32.	1,350	0.82	150
	8	77.8	93.	65.	63.0	86.	37.	1,871	0.55	158
	15	74.9	96.	62.	75.8	100.	41.	1,075	0.72	202
	22	76.1	92.	62.	59.4	100.	27.	1,740	0.06	242
	29	66.7	83.	52.	69.2	100.	33.	1,552	2.13	198
August	5	66.4	83.	56.	76.7	100.	55.	1,207	2.40	193
	12	75.6	95.5	64.	66.9	90.	41.	1,155	. . .	216
	19	69.4	87.	61.5	82.8	100.	52.	1,288	1.05	197

Weekly Means of Temperature, etc. — Continued.

Week Ending.	Temperature.			Humidity. (Saturation being 100.			Wind. Miles Travelled.	Rainfall. (In inches.)	Deaths Registered.
	Mean.	Max.	Min.	Mean.	Max.	Min.			
August 26	65.9	84.	50.	59.9	100.	27.	1,909	0.18	182
September 2	68.5	91.	53.	54.1	90.	28.	1,452	0.06	179
9	60.2	80.	47.	64.8	100.	27.	1,698	0.33	149
16	60.2	77.	48.	68.2	93.	35.	1,443	. . .	140
23	56.4	69.	47.	88.	100.	64.	1,861	2.46	161
30	55.2	74.	44.5	75.4	100.	35.	1,872	0.99	138
October 7	53.5	70.	42.	68.9	95.	40.	1,660	0.74	141
14	48.4	64.	31.	55.1	91.	27.	1,809	. . .	154
21	43.5	61.	30.	69.3	100.	40.	1,876	0.24	147
28	48.5	66.	29.	71.9	100.	35.	1,339	0.68	116
November 4	48.4	75.	26.	62.8	100.	26.	1,605	0.10	133
11	44.3	52.	31.	86.2	100.	37.	1,625	3.96	135
18	40.7	52.	29.	75.3	100.	56.	1,374	0.57	111
25	38.	45.	31.	81.	100.	39.	2,598	6.37	122
December 2	26.8	43.	4.5	66.8	100.	37.	1,293	0.03	142
9	30.2	46.	12.	67.7	100.	27.	1,518	0.15	143
16	23.7	48.	-1.	69.	100.	44.	2,200	0.37	142
23	14.2	33.	-4.	80.8	100.	44.	1,581	2.00	163
30	22.8	40.	5.	77.2	100.	59.	1,817	1.14	167

It is manifest that any influence which the weather may exert on the public health does not impress itself so immediately on the death-rate as on the sickness-rate. If we had a sickness registration we could undoubtedly define a direct coincidence between unusual meteorological conditions and unusual sickness. But the fatal termination of illness is frequently postponed till long after the origin of the disease, so that we must judge with caution concerning the relation of extreme weather to death-rate undulations. Take the case of the summer diarrhœa of infants, cholera infantum as it is commonly called: a hot week in July prostrates scores of children with sickness from this cause; but, of those who die, some will have survived their attack a few hours only; others, a few days; others still, more tenacious of life, will have endured their progressive decline during many weeks, their death occurring long after the hot term has ended. It

is true that unseasonable or extreme weather often has an immediate and tangible influence on the death-rate, by hurrying from the world those who are least able to withstand sudden or great changes; the infirm, the very young, and patients suffering with wasting maladies, are thus taken off. But an examination of the above table will discover many examples of the fact that fluctuations in death-rates do not correspond with marked changes in the weather. In the first week in February, when the mean temperature was as low as 19° Fahr., the lowest point in the week being 0, the deaths numbered 177; while three weeks later, the mean temperature being about the same (19.6°), and the minimum being 6.5° below zero, the force of the wind meanwhile being unusual, the deaths declined to 152, instead of increasing. On the contrary, in January, with the mean temperature at 29°, ten degrees higher than that just quoted, and with a dry and still air, favorable, one would suppose, to public health, the deaths numbered 218. So again, in hot weather, the maximum weekly death-rate was not reached till a full month after the memorable hot season set in, and in a week when the mean temperature was the highest of the year (77.8°) the deaths numbered nearly a hundred less than they did a fortnight later, when the maximum weekly mortality of the year was reached. No doubt, however, the effects of that hot month were distributed all along the subsequent weeks of the entire year. The closest approach to an absolute coincidence of high death-rate and unfavorable weather was in the second week of August, when, with a maximum temperature of 95.5°, a minimum of 64° and a mean of 75.6°, nine degrees higher than that of the previous week, the air being dry and still, the deaths rose in number from 193 to 216.

Age. — The following table will show upon what period of life the mortality of 1876 in Boston bore most heavily. We find that more than a quarter of the deaths were those of infants under a year old; and that more than two-fifths were deaths of young children under five. We thus see again illustrated, what has been observed so many times, that infancy and childhood furnish an excessive proportion of the mortality data of cities.

In the whole State of Massachusetts, in 1875, the percentage of deaths of infants under a year old, when compared with deaths at all ages, was 22.05; and the percentage during the nine years from 1866 to 1874 was 22.11. The percentage of deaths of children under five years old, for the above period, in Massachusetts, were respectively

Week ending	
Jan. 8, 1876.	
" 15, "	
" 22, "	
" 29, "	

84				
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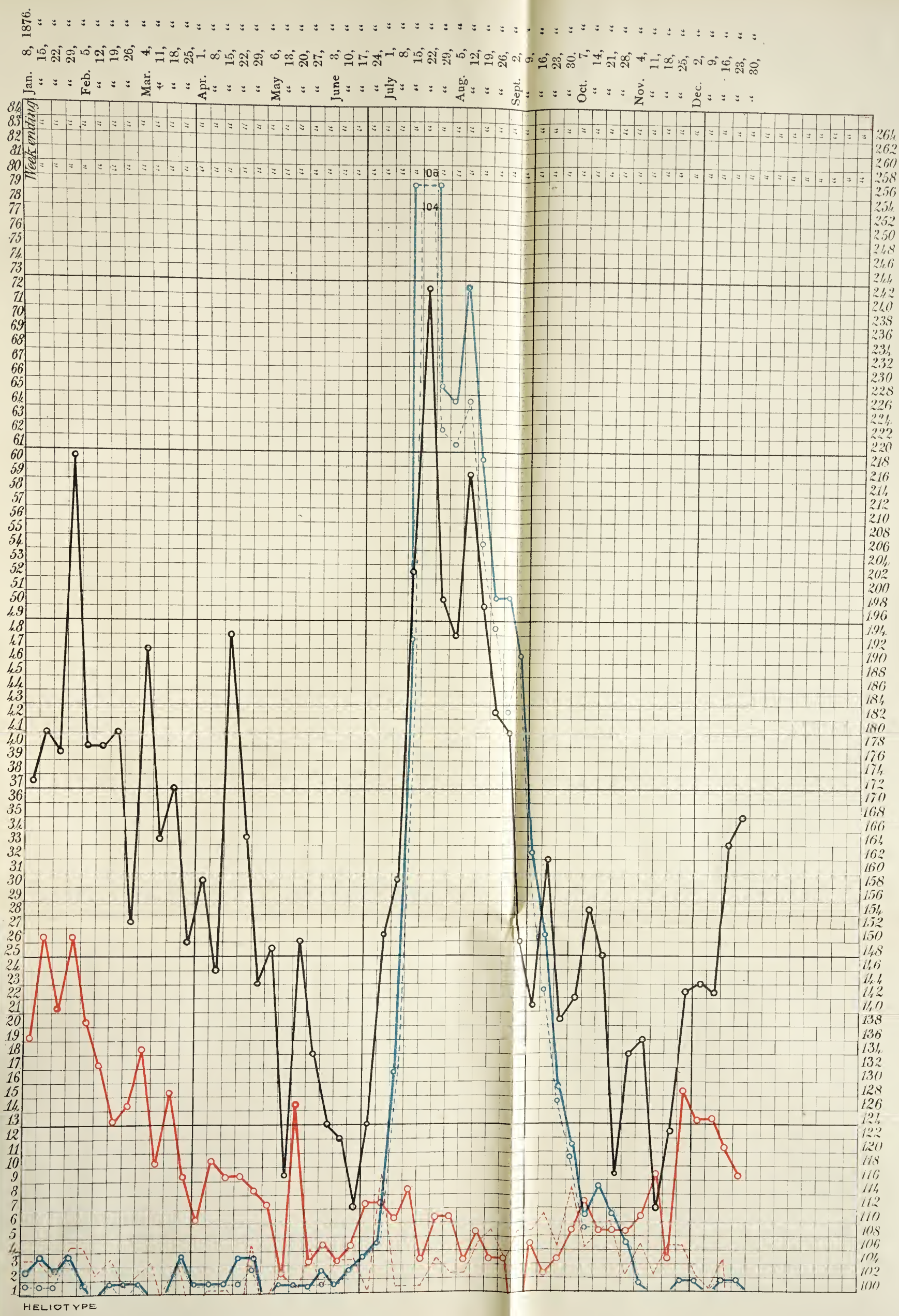


Weekly Deaths from all causes (scale at the right)

" " " Diarrhœal Diseases — all ages (scale at the left)

" " " Diarrhœal Diseases — ages under 5 (scale at the left)

" " " Scarlet Fever — all ages (scale at the left)

" " " Typhoid Fever — all ages (scale at the left)

36.76 and 35.95. It will be observed that the City of Boston suffered in 1876 a mortality among infants considerably in excess of these figures.

In New York city, the deaths of infants under one year old comprised, last year (1876), 28.03 per cent. of all the deaths; the deaths of children under five were 48.74 per cent. of the entire mortality.

This comparison of percentages is the only reliable method at present available for showing the excess of infant mortality. If we had the relatively accurate data of population in 1876 that were in our possession in 1875, mortality-rates at different ages and at different groups of ages could be calculated; and these would show much more acceptably than the present method, the contrasts to which we have referred. If we estimate that the living children under five bore to the entire population the same ratio per cent. in 1876 that they did in 1875 (the census year), there were 38,080 children among whom occurred 3,560 deaths; these estimated and approximate data give a mortality-rate per 1,000 of 93.49, — a rate less than that for the year ending April 30, 1876 (94.84), but much in excess of the rate for the entire State in 1875 (73.96). When we compare these infant mortality-rates with the rates of mortality at all ages, the contrast is most startling. This truly Herodian destruction of young lives is one of the most serious subjects which urban sanitary authorities are called upon to consider.

It should be explained here that included in the 3,560 deaths of infants in this city in 1876 are 149 deaths which occurred among the inmates of Saint Mary's Infant Asylum, in Dorchester. This institution gives the following statistics of its work during the year: —

Number of children remaining in the Asylum Jan. 1, 1876	55
Number admitted during the year ending Dec. 31, 1876	268
Total	323
Number discharged during the year	116
Number died	149
Number remaining Dec. 31, 1876	58
Total	323

These facts appear to invite adverse criticism of the management of this asylum. Such a mortality, amounting to a rate of 461 per 1,000 (nearly one half of all the inmates, and twenty times the rate of mortality for the city at large

at all ages), not only suggests that some most unwholesome and, as we believe, not altogether unpreventable conditions are at work in an institution whose natural advantages of location are exceptional, but actually affects the general mortality-rate among infants in the city as a whole, and by so much helps to give Boston a bad name. We cannot help feeling that if the authorities of Saint Mary's Infant Asylum would supplement the charitable purposes of the founders of their trust, and apply rigid hygienic regulations concerning the overcrowding of sleeping-rooms, the preparation of food, and the preservation of cleanliness, they would find their vital statistics less open to unfavorable comment.

Deaths at Different Ages, with Percentages (Deaths at Ages not Specified being omitted).

	Under 1 year.	1 to 2.	2 to 5.	Under 5 years.	5 to 10.	10 to 15.	15 to 20.	20 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	70 to 80.	Over 80.	All ages.
Numbers .	2,069	656	835	3,560	456	140	219	781	697	634	507	532	429	290	8,245
Percentage	25.09	7.96	10.13	43.18	5.53	1.69	2.66	.948	8.45	7.69	6.15	6.45	5.20	3.52	100.

Causes. — Statistics of the causes of mortality are, in theory, the most important element among the data gathered by registration; but, in practice, they are of all parts of the work the most unsatisfactory and the most exposed to error. Diseases are often obscure and do not betray their true nature by unquivocally distinctive signs. Physicians are not less liable than other men to err in observation and in description. Medical opinion has not yet become unanimous about the pathology and nomenclature of certain diseased conditions, and thus discrepancies arise. But before all other obstacles to accuracy, two factors must be placed: on the one hand, there is a certain indifference or carelessness among many physicians who seem to have small regard for the act of certifying causes of death, or for the manner in which the act is performed; on the other hand, we have, through the necessities imposed by the registration law, and by a singular trait in the popular mind whereby in many cases medical advice is deemed trustworthy in the inverse ratio of the intelligence and education of the person who gives it, a considerable amount of certifying by individuals who have no valid claim to the title of "physician," who are deficient in the rudiments of medical training, and whose certificates cannot for a moment be regarded as worthy of record on the score of reliability. Every day affords illustrations of these sources of inaccuracy in the form of death-certificates carelessly

made, inexact in form, unintelligible in matter, with astounding orthography, and showing remarkably slight evidence of appreciation of the true nature and useful purpose of the paper.

The remedy for this is perpetual vigilance in examining the returns, a strict scrutiny in discovering all probable and positive points of error, and in verifying and correcting the certificates before they are permitted to go on record. A radical remedy would lie in the absolute rejection of all certificates signed by persons who are known to be disqualified, through ignorance, to give an accurate medical opinion. But before the adoption of such a course, the systematic supervision of all the returns, and immediate amendment or verification of such as are doubtful, constitute the best available methods.

This system of managing the original certificates has been rigidly carried out during the year. By correspondence, special inspection, and otherwise, errors have been corrected, obscure points have been made plain, doubtful or inaccurate certificates have given place to revised and correct ones. The amount of work of this kind has been considerable, but the fruit of it has been commensurate and satisfactory.

Of the 8,253 deaths from all causes, 8,188 were presented for record, with their causes specified, with more or less acceptable definiteness.

These 8,188 causes of death were distributed as follows: —

	Deaths.	Percentage.	*Death-rate, per 1,000.
Zymotic	2,521	30.8	7.20
Constitutional	2,042	24.9	5.83
Local	2,556	31.2	7.30
Developmental	717	8.8	2.05
Violent	352	4.3	1.01
Total	8,188	100.0	23.39

The death-rate from zymotic diseases — 7.2 per 1,000 — is in excess of the healthy standard for cities; but it is not in excess of the rate in some other cities. New York, for example, had a rate of mortality in 1876, from these causes, of 9.01 per 1,000. The group of zymotic diseases contains the class of disorders which sanitarians have described as preventable, and as generated and fostered by filth — the

* Corrected for unspecified causes of death.

miasmatic and infectious diseases, such as typhoid fever, diphtheria, scarlet fever, and cholera infantum. A low death-rate from the diseases of this class is regarded by health authorities as indicative of a satisfactory attention to practical sanitation in the community in which such a death-rate obtains. Nevertheless, it must be remembered that this indication may be greatly modified by the temporary prevalence, as well as by the relative fatality, of certain of the contagious group. Thus, in the same year, scarlet fever and diphtheria may prevail coincidently, and be also exceptionally fatal. These accidental factors affecting the death-rate should be taken into the account, and, when comparisons are made, the standard should be the mean zymotic death-rate of a long series of years. It should be noticed that a high death-rate from zymotic diseases in any year means that the community is "filthy," or that fatal infectious diseases are prevailing temporarily; or, what is most probable, that both conditions co-exist.*

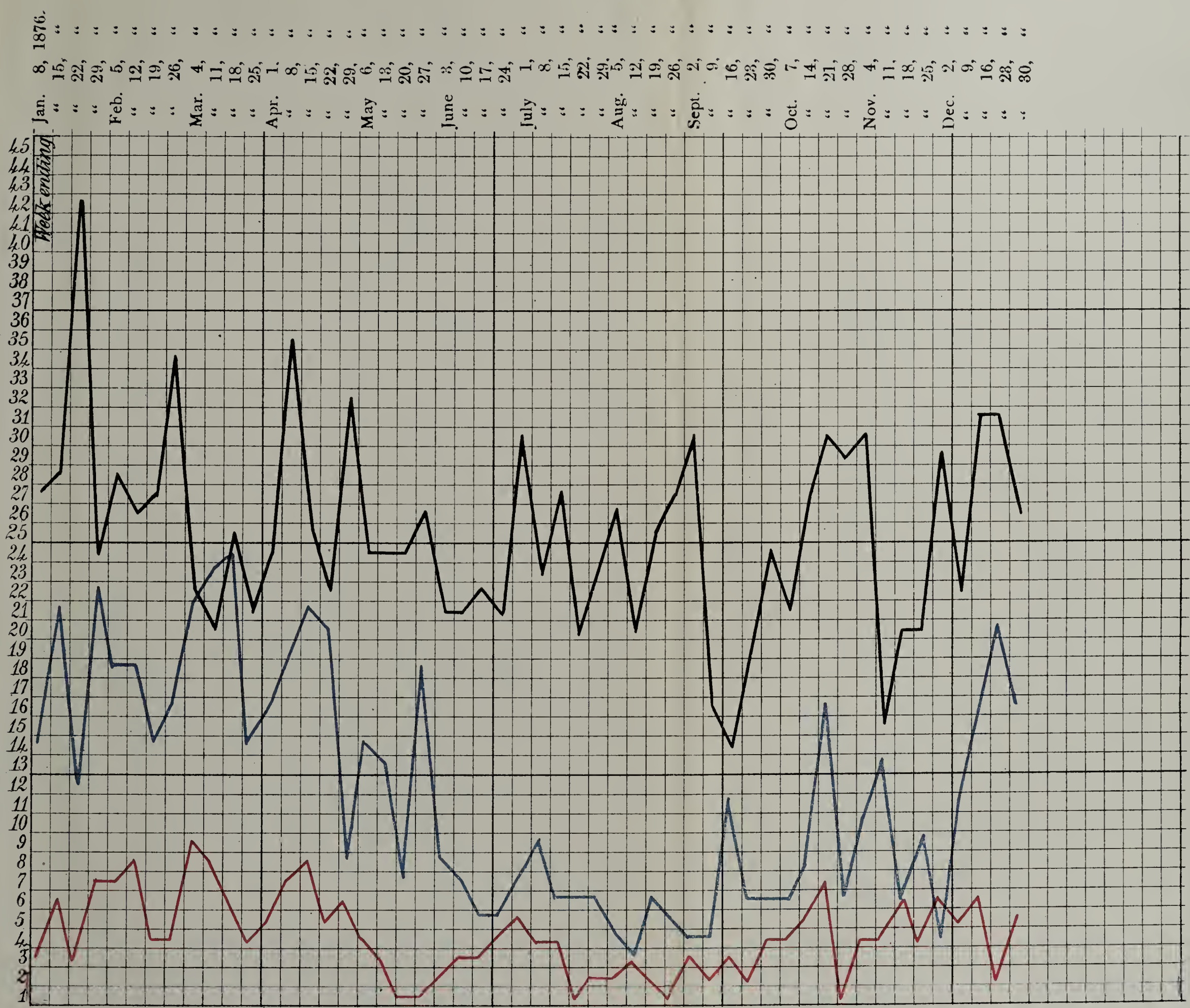
The death-rate from local diseases (of which pneumonia and bronchitis are examples) was almost identical in 1876 with that from zymotic diseases.

Proceeding now to analyze in greater detail the various causes of death in Boston in 1876, we shall see in what relation different diseases and groups of diseases stood to locality, ages of the decedents, and season.

The following table answers the question, *What were the chief causes of death in different sections of the city?*

The table shows the death-rate per 10,000 of the estimated living population, in each of the nineteen health districts, from the five most destructive causes of deaths; the deaths occurring in public institutions being omitted. Thus, a person residing in West Roxbury may learn that, in 1876, diphtheria and croup together caused more deaths than any one of the other diseases; but the rate per 10,000 (26) was less than that from the same diseases in other sections (East Boston, South Cove, Charlestown), where they held the *second* place. So, again, in the Commonwealth-avenue District consumption heads the list; but the most destructive cause of death here was less fatal than some other diseases which occupy the *fifth* place in the series elsewhere; thus pneumonia, the *fifth* in the South Cove District, exceeded the consumption death-rate in the Back Bay District. Then, too, let the rate from consumption here (16.8) be compared with the consumption death-rate (56.1) of the Leverett-street District. We need not multiply the interesting comparisons which this table affords the opportunity to make.

* It is gratifying to remark here that small-pox caused only three deaths in the city in 1876.



Weekly Deaths from Consumption.

" " " Pneumonia.

" " " Bronchitis.

Table showing the Five most Destructive Causes of Death in different Sections of Boston in 1876. *Death-rates in* 10,000.

	1	2	3	4	5
I. Upper East Boston	Diphtheria and Croup, 26.5	Consumption, 21.6	Brain Diseases, 16.0	Diarrhœal Diseases, 13.9	Pneumonia, 13.2
II. Lower East Boston	Consumption, 27.0	Diphtheria and Croup, 26.4	Brain Diseases, 16.3	Diarrhœal Diseases, 16.3	Violence, 15.1
III. Charlestown	Consumption, 36.1	Diphtheria and Croup, 28.3	Brain Diseases, 18.5	Pneumonia, 14.4	Diarrhœal Diseases, 10.9
IV. North End	Consumption, 47.8	Diarrhœal Diseases, 31.3	Brain Diseases, 28.5	Pneumonia, 19.8	Violence, 15.4
V. Old Mill-pond	Consumption, 31.9	Brain Diseases, 27.3	Pneumonia, 25.7	Diarrhœal Diseases, 18.7	Heart Diseases, 16.3
VI. Leverett street	Consumption, 56.1	Diarrhœal Diseases, 21.6	Brain Diseases, 20.0	Heart Diseases, 16.0	Pneumonia, 12.0
VII. Beacon Hill	Consumption, 30.3	Diarrhœal Diseases, 20.2	Pneumonia, 15.6	Brain Diseases, 15.2	Diphtheria and Croup, 13.9
VIII. Back Bay	Consumption, 16.8	Diphtheria and Croup, 16.8	Pneumonia, 15.4	Diarrhœal Diseases, 12.6	Heart Diseases, 9.8
IX. South Cove	Consumption, 43.1	Diphtheria and Croup, 29.4	Diarrhœal Diseases, 25.5	Brain Diseases, 24.2	Pneumonia, 17.6
X. Lower South Boston	Consumption, 46.5	Diarrhœal Diseases, 38.9	Diphtheria and Croup, 21.9	Scarlet Fever, 21.5	Brain Diseases, 17.4
XI. City Point and Dor. Heights .	Diarrhœal Diseases, 29.5	Consumption, 29.0	Diphtheria and Croup, 21.7	Brain Diseases, 19.2	Scarlet Fever, 16.1
XII. Washington Village	Consumption, 31.7	Diphtheria and Croup, 28.8	Scarlet Fever, 26.7	Brain Diseases, 22.5	Diarrhœal Diseases, 16.9
XIII. Albany R. R. to Milford st. .	Consumption, 25.2	Diarrhœal Diseases, 21.2	Diphtheria and Croup, 21.2	Pneumonia, 19.2	Brain Diseases, 13.2
XIV. Boston Neck	Consumption, 26.1	Brain Diseases, 18.1	Pneumonia, 11.9	Heart Diseases, 10.8	Diphtheria and Croup, 10.8
XV. Ruggles street	Consumption, 27.7	Diarrhœal Diseases, 26.2	Diphtheria and Croup, 25.9	Scarlet Fever, 18.09	Pneumonia, 16.7
XVI. Mt. Pleasant and Mt. Warren,	Consumption, 25.2	Brain Diseases, 22.0	Diphtheria and Croup, 20.2	Diarrhœal Diseases, 17.7	Scarlet Fever, 17.3
XVII. West Roxbury	Diphtheria and Croup, 26.0	Consumption, 10.6	Brain Diseases, 18.9	Pneumonia, 14.9	Scarlet Fever, 11.8
XVIII. Dorchester	Consumption, 30.2	Brain Diseases, 19.4	Diphtheria and Croup, 17.9	Scarlet Fever, 16.5	Diarrhœal Diseases, 16.5
XIX. Brighton	Consumption, 32.9	Scarlet Fever, 18.8	Diarrhœal Diseases, 12.5	Pneumonia, 12.5	Diphtheria and Croup, 10.9

The next table answers the question: *In what parts of the city were the principal causes of death most fatal in 1876?*

The table may be read as follows: In 1876, scarlet fever was most fatal in the Twelfth District of Boston (Washington Village), the deaths from this cause in that district having been at the rate of 26.7 to every 10,000 people at all ages; it was least fatal in the Fifth District, the rate there having been 7 per 10,000.

We see at a glance how the various parts of Boston stood in 1876 with relation to each other in the matter of prevalent destructive diseases. It requires little study to find many suggestive contrasts in this exhibit.

I WE

	Rate.	District.
Scarle	9.7	XII
Diph	20.2	XVII
Typh	3.2	IX
Diar	16.9	XVII
Seve	56.4	XIII
Con	29.0	XV
Dis	8.1	X
Dis	9.8	II
Br	4.7	XVII
Pn	4.9	III
Vi	6.3	VIII

nd Croup), V

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TABLE SHOWING IN WHAT SECTIONS OF BOSTON THE PRINCIPAL CAUSES OF DEATH WERE MOST FATAL IN 1876. DEATH-RATES PER 10,000.

	1.		2.		3.		4.		5.		6.		7.		8.		9.		10.		11.		12.		13.		14.		15.		16.		17.		18.		19.		Entire City.	
	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	District.	Rate.	Numbers.	Rates.
Scarlet Fever	XII	26.7	X	21.5	XV	18.9	XIX	18.8	XVI	17.3	XVIII	16.5	XI	16.1	II	11.9	XVII	11.8	VI	10.4	I	9.7	XII	9.3	IV	8.8	VIII	8.4	XIV	8.3	VII	8.0	IX	7.8	III	7.5	V	7.0	457	12.9
Diphtheria and Croup	IX	29.4	XII	28.8	III	28.3	I	26.5	II	26.4	XVII	26.0	XV	25.9	X	21.9	XI	21.7	XIII	21.2	XVI	20.2	XVIII	17.9	VIII	16.8	VII	13.9	VI	12.8	V	12.4	XIX	10.9	XIV	10.8	IV	10.4	735	20.8
Typhoid Fever	XVII	6.3	IV	6.0	X	5.8	XIX	4.7	V	4.7	XV	4.4	VIII	4.2	II	3.8	XIV	3.6	VII	3.4	XVI	3.2	IX	3.1	III	2.9	XVIII	2.9	XI	2.6	VI	2.4	XII	2.1	I	2.1	XIII	1.3	149	4.2
Diarrhœal Diseases *	X	38.9	IV	31.3	XI	29.5	XV	26.2	IX	25.5	VI	21.6	XIII	21.2	VII	20.2	V	18.7	XVI	17.7	XII	16.9	XVIII	16.5	II	16.3	I	13.9	VIII	12.6	XIX	12.5	XVII	11.8	III	10.9	XIV	10.5	732	20.7
Seven chief Zymotic Diseases †	X	91.6	XII	78.7	XV	77.3	XI	72.5	III	70.5	IX	66.5	II	60.9	XVI	59.2	IV	59.2	XVII	56.5	I	56.4	XIII	54.3	XVIII	53.3	VI	48.0	XIX	46.9	VII	46.8	V	44.3	VIII	42.0	XIV	34.7	2,138	60.6
Consumption	VI	56.1	IV	47.8	X	46.5	IX	43.1	III	36.1	XIX	32.9	V	31.9	XII	31.7	V	30.3	XVIII	30.2	XI	29.0	XV	27.7	II	27.0	XIV	26.1	XIII	25.2	XVI	25.2	I	21.6	XVII	19.7	VIII	16.8	1,300	36.8
Diseases of the Brain	IV	28.5	V	27.3	IX	24.2	XII	22.5	XVI	22.0	VI	20.0	XVIII	19.4	XI	19.2	XVII	18.9	III	18.5	XIV	18.1	X	17.4	XV	16.7	II	16.3	I	16.0	VII	15.2	XIII	13.2	XIX	7.8	VIII	7.7	720	20.4
Diseases of the Heart	V	16.3	VI	16.0	IV	13.2	X	11.6	XIV	10.8	XVI	10.8	III	10.7	VII	10.5	IX	10.9	XIII	9.9	VIII	9.8	II	8.8	XV	7.9	XVIII	7.9	XVII	7.1	I	6.9	XII	6.3	XI	6.2	XIX	4.7	388	10.9
Bronchitis	IX	13.7	X	13.4	XII	12.6	IV	11.5	VI	9.6	XIX	6.3	XIII	5.9	XI	5.7	XVI	5.4	VIII	4.9	V	4.7	XVII	4.7	VII	4.7	III	4.3	XVIII	4.3	II	3.1	XIV	2.9	XV	2.5	I	2.1	219	6.2
Pneumonia	V	25.7	IV	19.8	XIII	19.2	IX	17.6	XV	16.7	XVI	16.6	X	16.5	VII	15.6	VIII	15.4	XVIII	15.1	XVII	14.9	III	14.4	II	13.8	I	13.2	XIX	12.5	VI	12.0	XIV	11.9	XII	11.9	XI	11.4	592	16.8
Violence	IV	15.4	II	15.1	V	12.4	IX	11.1	X	8.5	VII	8.0	XVIII	7.9	VI	7.2	XIV	7.2	III	6.9	I	6.3	VIII	6.3	XVII	6.3	XIX	6.3	XV	5.9	XI	5.7	XVI	4.7	XIII	4.6	XII	2.8	352	9.9

* Diarrhœa and Cholera Infantum.

† Small-pox, Measles, Scarlet Fever, Diphtheria (and Croup), Whooping Cough, Typhoid Fever, and Diarrhœal Diseases.

In the next table we show the relation of the principal causes of death to age-distribution. This gives for each of ten groups of ages the five chief causes of mortality. We present simply the numbers of the deaths, reliable data of population distributed according to ages being wanting, — an essential element in the proper calculation of death-rates. We here observe that the diarrhœal diseases (cholera infantum predominating) were the most destructive cause of infant mortality; children between five and ten years of age were carried off by diphtheria and croup; then consumption heads the list for all ages from ten to seventy; and after seventy old age appropriately heads the list.

The Five Chief Causes of Death at Ten Different Groups of Ages. — 1876.

	Under 5.	5-10.	10-20.	20-30.	30-40.
1	Diarrhœal Diseases . . . 688	Diphtheria and Croup 193	Consumption 110	Consumption 404	Consumption 287
2	Diphtheria and Croup . 492	Scarlet Fever 111	Typhoid Fever 35	Violence 54	Violence 55
3	Marasmus and Inanition 462	Brain Diseases 86	Heart Diseases 29	Typhoid Fever 41	Pneumonia 51
4	Brain Diseases* 433	Consumption 27	Diphtheria 28	Heart Diseases 38	Heart Diseases 48
5	Scarlet Fever 323	Pneumonia 10	Brain Diseases 27	Pneumonia 37	Brain Diseases 40

	40-50.	50-60.	60-70.	70-80.	Over 80.
1	Consumption 182	Consumption 104	Brain Diseases 80	Old age 90	Old age 144
2	Pneumonia 66	Brain Diseases 61	Heart Diseases 76	Brain Diseases 59	Brain Diseases 23
3	Brain 55	Pneumonia 56	Consumption 75	Heart Diseases 58	Pneumonia 21
4	Heart 53	Heart Diseases 51	Pneumonia 71	Pneumonia 38	Bronchitis 13
5	Violence 50	Violence 36	Cancer 46	Consumption 32	Heart Diseases 13

* Tubercular Meningitis (134); Meningitis (147); and Convulsions (152).

The following table answers the question, *What are the ages at which the chief causes of death occur?* The figures may be read thus: In 1876, scarlet fever was most fatal in childhood, 95 per cent. of those dying from that cause having been under ten years of age; consumption was most fatal in the third decade of life, nearly a third of the deaths having occurred in that period.

Table showing at what Period of Life the Principal Causes of Death were most fatal in 1876.

	1.		2.		3.		4.		5.		6.		7.		8.		9.		All Ages.	
	Period.	Percentage.	Period.	Percentage.	Period.	Percentage.	Period.	Percentage.	Period.	Percentage.	Period.	Percentage.	Period.	Percentage.	Period.	Percentage.	Period.	Percentage.	Total Deaths.	Percentage.
Scarlet Fever . . .	Und'r 10	95.0	10–20	3.9	20–30	1.1	. . . .	. . .	. . . .	. . .	. . . .	. . .	. . . .	. .	. . . .	. .	. . . .	. .	457	100.
Diphtheria	Und'r 10	91.9	10–20	4.8	20–30	1.5	30–40	1.2	40–50	0.3	. . . .	. . .	60–70	0.3	. . . .	. .	. . . .	. .	590	100.
Croup	Und'r 10	100.0	. . . .	. . .	. . . .	. . .	. . . .	. . .	. . . .	. . .	. . . .	. . .	. . . .	. .	. . . .	. .	. . . .	. .	145	100.
Diphtheria & Croup	Und'r 10	93.3	10–20	3.8	20–30	1.3	30–40	1.0	40–50	0.3	. . . .	. . .	60–70	0.3	. . . .	. .	. . . .	. .	. . .	. . .
Typhoid Fever . .	20–30	27.5	10–20	23.5	Und'r 10	17.4	30–40	14.8	40–50	7.4	50–60	5.3	60–70	2.0	70–80	1.3	Over 80	0.8	149	100.
Diarrhœal Diseases*	Und'r 10	93.2	70–80	1.3	60–70	1.2	50–60	1.2	40–50	1.1	20–30	0.7	Over 80	0.6	30–40	0.6	10–20	0.1	732	100.
Rheumatism	20–30	18.4	40–50	18.4	50–60	13.2	70–80	13.2	30–40	10.5	10–20	10.5	60–70	7.9	Und'r 10	7.9	. . . .	. .	38	100.
Consumption . . .	20–30	31.1	30–40	22.0	40–50	14.0	10–20	8.4	50–60	8.0	Und'r 10	7.7	60–70	5.8	70–80	2.5	Over 80	0.5	1,300	100.
Disea's of the Brain	Und'r 10	48.2	60–70	11.1	50–60	8.4	70–80	8.2	40–50	7.6	30–40	5.5	20–30	3.9	10–20	3.9	Over 80	3.2	720	100.
Disea's of the Heart	60–70	19.6	70–80	14.9	40–50	13.7	50–60	13.1	30–40	12.4	20–30	9.8	10–20	7.5	Und'r 10	5.6	Over 80	3.4	388	100.
Bronchitis	Und'r 10	68.5	70–80	9.6	50–60	6.8	Over 80	5.9	60–70	5.0	30–40	2.3	20–30	1.4	10–20	0.5	. . . .	. .	219	100.
Pneumonia	Und'r 10	39.7	60–70	11.9	40–50	11.1	50–60	9.5	30–40	8.6	70–80	6.4	20–30	6 3	Over 80	3.6	10–20	2.9	592	100.
Bright's Disease . .	40–50	20.0	50–60	18.4	30–40	13.6	20–30	12.0	60–70	11.2	Und'r 10	9.6	70–80	7.2	10–20	6.4	Over 80	1.6	125	100.
Violence	Und'r 10	24.4	30–40	15.9	20–30	15.8	40–50	14.5	50–60	10.5	10–20	7.3	60–70	6.7	70–80	2.6	Over 80	2.3	344	100.

* Including Cholera Infantum.

DIPHTHERIA.

The sanitary history of the city has been marked during the last two years by an unusual and destructive prevalence of diphtheria. The presence of this disease in Boston has been simply a local manifestation of a wide-spread development of the diphtheritic poison which has not yet become exhausted after a period of activity exceptionally prolonged. The mortality from this justly-dreaded affection has recently borne such an uncommon relation to the deaths from all causes in this city, that it will be interesting to study in some detail the facts which are at our disposal concerning its distribution and other characters, with regard to age, season, and locality.

During the two years ending April 30, 1877, diphtheria was the assigned cause of 1,064 deaths in Boston. This mortality was at the rate of 30.16 in every 10,000 of the population of the city at all ages, as estimated at the middle of the period included.

If, now, we add to these 1,064 deaths from diphtheria the 353 deaths from croup that occurred during the same period, we have an aggregate of 1,417 deaths from these combined causes, and a rate of 40.16 per 10,000 of the population of 1876.

There are many good reasons for including in our analysis the two diseases as above indicated, and for not limiting our study to the deaths certified as having been caused by diphtheria alone. Many excellent authorities might be cited who advocate the actual identity of croup and diphtheria; and certainly the natural history, the local manifestations, and the fatality of the two maladies, present many points of resemblance which lend color to such a view. Moreover, we cannot ignore the probability that, in consequence of this close similarity, many deaths have been certified as caused by one of these diseases, when a more exact and intelligent discrimination might have determined that the other was the real cause. This interchange and overlapping are due in part to erroneous certifying, the fruit of imperfect diagnosis; in part to the lamentable ignorance of some of those called upon for death-certificates, but who are really unable to make accurate distinctions in any matters demanding trained intelligence. For these reasons there seems to be a propriety in recognizing, in mortality statistics at least, an alliance between croup and diphtheria. By combining the statistics of both diseases, we are at least tolerably certain of including all the data of each disease.

Season. — The following table gives the distribution of this mortality from diphtheria, from croup, and from both diseases, according to season. We see that in the range of monthly mortality from diphtheria, during the two years, a double fluctuation is observed, the highest points being reached in January and December of 1876, and the lowest points being in May, 1875, and September, 1876. A similar double curve, almost coincident with that of diphtheria, is marked by the monthly deaths by croup; the highest points being May, 1875, and December, 1876, and the lowest points being in the spring and summer months of 1875 and 1876. This parallelism of the two diseases, their rise and fall together, affords another evidence of the propriety of regarding them together.

	1875.								1876.												1877.				
	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	January.	February.	March.	April.	Total.
Diphtheria . .	14	19	29	19	31	63	81	87	98	75	59	39	41	39	31	30	24	43	39	59	37	43	37	27	1,064
Croup	11	11	11	11	21	32	39	30	31	12	13	15	17	8	5	5	3	10	8	17	12	9	15	7	353
Diphtheria and Croup . . .	25	30	40	30	52	95	120	117	129	87	72	54	58	47	36	35	27	53	47	76	49	52	52	34	1,417

Undoubtedly it is possible to trace a causative relation between cold, damp weather and the prevalence of the diseases which we are studying. We should expect that an accurate disease registration would reveal the fact that diphtheria and croup increase and subside with the access and decline of those meteorological conditions. But we have failed to determine with satisfactory clearness a close coincidence between the highest death-rate from diphtheria in the recent epidemic and the lowest temperature. The month of January, 1876, for example, in which the greatest monthly mortality was registered, was not as cold as the next succeeding month of February, when the mortality was declining.

Probably one reason for the more active operation of the diphtheritic poison in cold weather lies in the fact that during the winter and early spring months people remain much more within doors than at other seasons, and, therefore, the exposure to the conditions favorable to the development of the disease is by so much increased.

Ages. — The next table shows how the 1,417 deaths from diphtheria and croup were distributed with regard to the age of the decedents.

The average age of all who died from diphtheria during the two years was 4 years, 9 months and 28 days. Omitting from the calculation all those who died at ages above 15 years, the average age is reduced to 3 years, 11 months and 28 days.*

The average age of the 353 who died from croup was 2 years, 9 months, and 21 days. All these decedents from croup were under 10 years old.

These results show how terribly destructive these diseases are to infant life : —

	Under 6 Months.	6 to 12 Months.	1	2	3	4	5	6	7	8	9	10 12	12 15	Over 15	Total.
Diphtheria . .	25	66	184	178	141	114	99	75	50	43	18	28	11	32	1,064
Croup	10	25	98	86	53	33	24	16	5	2	1	. .	. .	. . .	353
Total	35	91	282	264	194	147	123	91	55	45	19	28	11	32	1,417

We may show a little more clearly the relation of age to mortality by a calculation of the ratio per cent. of decedents at different ages to the whole number. These percentages are given in the following table. They show that deaths under one year, from either diphtheria or croup, are comparatively infrequent; that the mortality falls most heavily on infants between one and two years old; that in this respect croup exceeds diphtheria; that after the age of two years there is a marked and continuous decline in the percentage.

* The decedents from diphtheria, whose age exceeded 15 years, were as follows : —

Aged 15	3	Aged 36	1
" 16	2	" 37	1
" 17	1	" 40	1
" 20	5	" 41	1
" 21	1	" 45	1
" 23	2	" 52	1
" 25	1	" 62	1
" 27	2	" 64	1
" 30	2	" 65	1
" 31	2	" 67	1
" 34	1		

	Under 6 Months.	6 to 12 Months.	1	2	3	4	5	6	7	8	9	10 12	12 15	Over 15	Total.
Diphtheria . .	2.4	6.2	17.3	16.8	13.3	10.7	9.3	7.0	4.7	4.0	1.7	2.6	1.0	3.0	100.
Croup	2.8	7.1	27.8	24.4	15.	9.3	6.8	4.5	1.4	0.6	0.3	. .	. .	. . .	100.
Both Diseases .	2.5	6.4	19.9	18.6	13.7	10.4	8.7	6.4	3.9	3.2	1.3	1.9	0.8	2.3	100.

Whether the results exhibited in the foregoing table are really trustworthy, as showing at what age diphtheria and croup destroy most lives, may best be demonstrated by means of death-rates for the two diseases calculated upon the number living at the different ages and groups of ages. We have not the data of population requisite for this desirable result. We can only approximate by using the facts supplied by the census of 1875, taken at the very beginning of the period under observation. The death-rates per 10,000 at different ages upon this basis are given in the next table. It will be seen that these rates confirm the observations just made, and show that infants a year old supply an excess of the victims of both diphtheria and croup. While only one in 10,000 of those living at ages above 15 was destroyed by diphtheria, and only six at ages between 12 and 15, the rate for ages between 1 and 2 years reached 316, or more than ten times the mean rate at all ages.

	Under 6 months.	6 months to 12 months.	1 year.	2 years.	3 years.	4 years.	5 years.	6 years.	7 years.	8 years.	9 years.	10 to 12 yrs.	12 to 15 yrs.	Over 15.	Mean (all ages).
Diphtheria	63	157	316	209	185	164	144	113	77	68	31	25	6	1	31
Croup	25	59	168	101	69	48	35	24	8	3	2	.	.	.	10
Total	88	216	484	310	254	212	179	137	85	71	33	25	6	1	41

Local Distribution. — It is well known that medical opinion, with regard to the origin and mode of propagation of diphtheria, has not yet reached that degree of unanimity which carries full authority. Examination of standard works on practical medicine and of files of medical journals discovers very great diversity of views among writers of

equal weight. With some the purely contagious character of the disease is made prominent. With others local conditions of filth and dampness, organic decomposition, and insanitary social relations, poverty and overcrowding are the essential factors determining the development and spread of the diphtheritic miasm. Others regard the disease as due to a complex cause, in which contagion and local uncleanliness combine, as chief elements, to foster and disseminate the destructive agent.* This diversity of views upon the etiology of a greatly dreaded malady is a hindrance to the development of any consistent method for the prevention and control of an epidemic by sanitary means.

We must await the farther investigations which shall elucidate points at present speculative and supply the basis for effective sanitation.

It is obvious that a most fertile field for such investigation is afforded by the registration of mortality. Diphtheria is fatal in a tolerably uniform ratio of the number of cases attacked; that is to say, epidemics do not vary widely in their intensity and destructiveness, so that statistics of deaths from this cause are a fair index of the inroads of the disease upon the public health. It is further obvious that facts pertaining to the local distribution of diphtheria are of especial interest in explaining and illustrating etiological theories. If, for example, contagiousness is the essential characteristic of this disease, we shall find the deaths distributed quite generally without regard to special local conditions. If, on the other hand, the disease depends, for its origin and spread, upon insanitary social and soil relations, we shall see epidemics shunning healthful localities and always at home in ill-drained, sewage-sodden, miasmatic regions, inhabited by an unwholesome, overcrowded, improvident population.

Now, what testimony has Boston to offer on these points, gathered from the experience of the last two years? In the first place, the evidence of district mortality-rates from diphtheria and croup is available, as shown in the following

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* We do not feel that we shall misrepresent the general feeling of the medical profession and of sanitarians when we state that to filth acting through the medium of the atmosphere is assigned by far the largest share of the blame in the matter of the etiology of diphtheria. Statisticians classify the disease as a zymotic or "filth" disease. Among the most recent statements to this effect, we find the following by E. M. Snow, M.D., the well-known sanitarian, and recently the President of the American Public Health Association. In his observations on the public health of Providence, R.I., for the month of May, 1877, he says: "With reference to diphtheria, which is now increasing in the city, it is of the utmost importance at the present time that our citizens should attend to the removal of all filth that can be removed, and to the *thorough* disinfection of such as cannot be removed. Foul air from privy-vaults and cesspools is thought to be a specific cause of diphtheria. The present is the time for effectual action in this matter."

table, the nineteen districts being the same as those described in connection with the general mortality statistics of the city on previous pages.

Diphtheria and Croup, 1875–77. *Mortality rates per* 10,000 *of the Estimated Population in* 1876.

	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.	X.
Diphtheria	50.8	41.5	34.7	26.9	10.1	29.6	16.0	27.3	35.9	38.9
Croup	9.1	10.1	10.9	21.9	6.2	5.6	5.5	2.1	13.1	13.9
Total	59.9	51.6	45.6	48.8	16.3	35.2	21.5	29.4	49.0	52.8

	XI.	XII.	XIII.	XIV.	XV.	XVI.	XVII.	XVIII	XIX.	Whole city.
Diphtheria	34.7	33.1	25.2	19.6	35.6	24.5	30.7	22.4	37.6	30.16
Croup	17.1	14.1	10.6	4.3	12.6	7.5	6.3	5.0	7.8	10.00
Total	51.8	47.2	35.8	23.9	48.2	32.0	37.0	27.4	45.4	40.16

These district mortality-rates do not present such distinctive characters as the believer in uncleanliness as a cause of diphtheria would like to see. For example, the greatest number of deaths in proportion to population occurred in the upper part of East Boston, a section not specially characterized by unwholesome local or social conditions; much of the territory is high land, well drained, and occupied by a thrifty class of people. Then, again, the Nineteenth District (Brighton), rural in character, sparsely settled, and presenting many attractive and apparently salubrious features, had a diphtheria death-rate considerably in excess of that of the city at large. On the other hand, we find that at the "North End" (District IV.), a section whose name has for many years been synonymous with bad material and moral conditions, the inhabitants were blessed with comparative immunity from the inroads of diphtheria, although the death-rate from croup was excessive. But the next adjacent section of territory (District V.) is a surprising exception; this is the region around Haymarket square, a locality formerly occupied by a mill-pond, but at present inhabited, upon the poorly sewered filled land which has taken the place of the mill-pond, by a people of the poorer class, crowded in tenement blocks. In this insalu-

brious territory, presenting in its filth and in its compact population just the conditions for the spread of a miasmatic-infectious epidemic, the death-rate from diphtheria was lower than in any other part of the city, — an anomaly most difficult to explain.

The eccentricities in the local distribution of diphtheria during the past two years in Boston are shown somewhat more prominently in the next table, which gives an ascending scale of death-rates in the districts, from the lowest to the highest, from diphtheria alone and from diphtheria and croup combined: —

Diphtheria	V.	VII.	XIV.	XVIII.	XVI.	XIII.	IV.	VIII.	VI.	CITY.
	10.1	16.0	19.6	22.4	24.5	25.2	26.9	27.3	29.6	30.16
Croup and Diphtheria	V.	VII.	XIV.	XVIII.	VIII.	XVI.	VI.	XIII.	XVII.	CITY.
	16.3	21.5	23.9	27.4	29.4	32 0	35.2	35.8	37.0	40.16

Diphtheria	XVII.	XII.	III.	XI.	XV.	IV.	XIX.	X.	II.	I.
	30.7	33.1	34.7	34.7	35.6	35.9	37.6	38.9	41.5	50.8
Croup and Diphtheria	XIX.	III.	XII.	XV.	IV.	IX.	II.	XI.	X.	I.
	45.4	45.6	47.2	48.2	48.8	49.0	51.6	51.8	52.8	59.9

These results, it must be confessed, are a surprise and, in some respects, a disappointment. The etiology of diphtheria would be much clearer if we found the disease always most abundantly disseminated in localities well adapted for the germination and spread of the miasmatic and infectious group of diseases. We are compelled to admit that it has not been so found in this invasion.

But it may very properly be objected that considerable territorial areas may present quite uniform and satisfactory sanitary characters as a whole, while individual dwellings in those sections may have exactly the unwholesome qualities upon which stress is laid; so that these dwellings, if inspected, would be found in a condition to explain the mysteries of the diphtheritic death-rates of the districts to which they belong. To answer this objection, we offer the results of house-to-house inspection. For several months, until sickness overtook the inspector who had the work in charge, a careful examination was made of every dwelling in which a death from diphtheria or croup had occurred. The inspector was especially chosen for his fitness for the work, for his close observation and keen and accurate detection of

imperfections in dwelling-house hygiene. The results of the investigation are summarized in the following table, which expresses by percentages the condition in which the infected habitations were found. It should be remembered that the inspection did not cover all the cases of diphtheria and croup; but, as it was in progress mainly during the months when diphtheria prevailed most extensively, the results, both numerically and in point of fact, are valuable: —

Percentages.	Premises all right.	House-drain defective.	Premises filthy.	Surroundings objectionable.	Total.
Diphtheria . .	47 per cent.	39 per cent.	3 per cent.	11 per cent.	100.
Croup	61 "	25 "	9 "	5 "	100.

It thus appears, under the head of diphtheria, that nearly one-half the premises inspected (47 per cent.) presented nothing objectionable in point of drainage and general cleanliness; in 39 per cent. the drainage was defective; in the small proportion of 3 per cent. the yards and cellars were dirty; and in the remaining 11 per cent. sunken lots, stagnant water, or filthy dumps made the surroundings open to objection. The summary for croup makes a still more favorable exhibition.

The results here shown do not carry the assurance that our observations upon the diphtheria death-rates were erroneous. If filth be the sole or the chief cause of diphtheria, our inspector should have found irreproachable very many less than 47 per cent. of the houses in which the disease had occurred. Consistently, every one of these dwellings should have presented some sanitary defect. It is true many of the habitations visited gave reason enough for the existence of fatal sickness within their walls, and many illustrations of a condition of things thoroughly bad might be quoted. But these unwholesome dwellings were not sufficiently numerous to establish unequivocally a rule of badness; indeed, they were not as numerous as one would like in order to confirm a theory of the cause of diphtheria. So far as our evidence goes, we are not yet prepared to affirm that diphtheria occurs uniformly or generally in unwholesome houses or on unwholesome territory.

As final confirmatory testimony of the truth of this observation, — less direct, indeed, and less specific than that just alluded to, but valuable in a certain sense, — we give the summary of the medical opinions elicited during the progress

of this investigation. Hoping to obtain definite information from medical men, the Board for some time addressed a circular with a series of questions to every physician who returned diphtheria as a cause of death, asking brief replies concerning the sanitary condition of the premises in which the fatal case had occurred. The answers to these interrogatories were not always satisfactory; the respondents were not invariably men (or women) of superior intelligence; many of the replies were withheld; therefore, after the results of the attempt were found to disappoint expectation, the experiment was abandoned. Nevertheless, in one respect it served a useful purpose; though lacking the quality of exactness so desirable in all such work, it showed that medical scrutiny had not discovered a common condition of unwholesomeness in habitations consistent with the generally accepted belief concerning the origin of diphtheria.

Drainage.			Ventilation.		
Good.	Fair.	Bad.	Good.	Fair.	Bad.
42 per cent.	9 per cent.	49 per cent.	45 per cent.	14 per cent.	41 per cent.

Light.			Habits.			Odors.	
Good.	Fair.	Deficient.	Cleanly.	Indiffer'nt	Filthy.	Present.	Absent.
57 per ct.	13 per ct.	30 per ct.	47 per ct.	26 per ct.	27 per ct.	40 per ct.	60 per ct.

It is, then, our duty, in view of the concurrent testimony, to reject the idea that filth fosters the origin and dissemination of diphtheria. Because diphtheria has prevailed less in the South Cove District than in Brighton; less in the "Old Mill Pond" District than on Beacon Hill, and less at the "North End" than at West Roxbury; and because expert inspectors have found the disease occurring in many houses whose sanitary condition was above reproach, and because physicians have reported that they have observed the fatal issue to come in wholesome and unwholesome dwellings alike, shall we be justified in advising a disregard of sanitary measures in the presence of a diphtheritic invasion? Are defective house-drains, offensive privies, broken cesspools, obstructed water-closets, innocent of mischief? We are not

inclined to that conclusion. On the contrary, we believe that while the cause or causes of diphtheria remain obscure, eluding at present the keen search of those who would discover them, common sense and common prudence dictate that the most comprehensive precautions should be applied till the time shall come when increased knowledge shall eliminate such as are superfluous. A single invasion like the present does not afford enough experience for a clear solution of the question. Although the testimony of the last two years does not sustain the theory which assigns to uncleanliness, acting through the air, the paramount influence in the propagation of diphtheria, it is nevertheless unwise at present to be dogmatic about this or other views. We cannot, as yet, forego the conviction that filthy local conditions invite the manifestation of the zymotic diseases, of which diphtheria is a conspicuous example. The disease may not accept the invitation, but it is not safe to offer inducements. The appearance of diphtheria in any household affords reasonable ground for suspicion that the sanitary condition of the premises is not altogether right, and should be interpreted as an urgent call for the most careful inspection, and for the earliest possible amendment of whatever is found wrong. In recognition, also, of the obviously infectious character which diphtheria has many times displayed under circumstances unobjectionable from a sanitary point of view, a case of diphtheria should be isolated during its treatment; if a fatal issue occurs, the funeral services should be private, — notice to that effect being given with the published notice of the death; and the dead body itself should be disinfected and concealed from view.

Until trustworthy investigation shall have succeeded in demonstrating the preventive measures which are effectual and requisite, and the non-preventive measures which are superfluous become useless, wisdom and prudence declare that it is better to overstep the limits of caution, rather than to come short of them, in dealing with a disease like diphtheria.

Scarlet Fever.

The two great problems which are at present engaging the attention of students of public hygiene, are how to prevent, if possible, the occurrence of disease, and how to reduce to a minimum the danger to a community from disease when it exists. The first of these problems, dealing as it does with various questions, which possess rather a scientific than a medical interest, has already attracted the attention of many

distinguished workers in various parts of the world, and the result has been that a very marked improvement has taken place within the last half-century as regards drainage, sewerage, the erection of cheap and properly constructed tenement houses, the building of elaborate water works, the appointment of local Boards of Health, and the adoption of various measures, all tending to a general improvement in the sanitary condition of the people. The second problem, however, is one which necessarily attracts the attention of the members of the medical profession only, who, in their daily practice, are constantly engaged in the study of those diseases which are at all times more or less present in a community, and which form a large part of the annual mortality of cities and towns.

These diseases are contagious, and, therefore, not unfrequently appear as epidemics, carrying off annually a greater or less number of victims, according as their type is, for the time being, mild or malignant. Among these diseases are chiefly to be named cholera, yellow fever, small-pox, and scarlet fever. The first three of these appear, as a rule, only in well-marked epidemics, sporadic cases being of such rare occurrence as scarcely to attract attention. Scarlet fever, on the other hand, is always present in a community; varying, it is true, however, in its type, and possibly in its contagious character. The sudden appearance in a community of cholera, yellow fever, and small-pox, at once attracts public attention, and any effort of the authorities, advised or sanctioned by the medical profession, is at once met with the popular approval. As a natural result, therefore, the duration of such epidemics is short, and the means adopted for the checking of their further spread are speedily effectual. Scarlet fever, on the other hand, is always present, and yet there seems to be no thought in the community at large of classifying it among the other diseases just mentioned, as being in any way capable of being controlled by the adoption of proper sanitary rules and regulations. Yet the number of its victims is much larger than that of small-pox has ever been since the introduction of vaccination.

In Boston during the last twenty-eight years (1849–1877) there have been 2,519 deaths from small-pox and 6,157 from *scarlet fever*. In this calculation no mention of course is made of the vast number of patients who, while they survive the attack of scarlet fever, are, however, crippled for life, and doomed to spend the remainder of their days as confirmed invalids. An examination of the deaths resulting from scarlet fever and small-pox shows also that while the latter appears in the city as a well-marked

epidemic, and as such is speedily attacked by every means at the disposal of the Health Department, the former is present always to a great extent without scarcely attracting any attention.

Deaths from Scarlet Fever.		Deaths from Small-Pox.	
1867 306	1873 474	1867 144	1873 302
1868 266	1874 269	1868 8	1874 2
1869 330	1875 555	1869 6	1875 1
1870 205	1876 458	1870 32	1876 3
1871 111	—	1871 28	—
1872 258	3,232	1872 738	1,264

The startling statement which appears from the above table, that there were, during the last three years, only 6 deaths from small-pox to offset the 1,282 from scarlet fever, may well make one wonder at the apparent apathy which exists in the community as to the danger to the public from constant presence of scarlet fever in our midst.

Another potent reason for attempting to control the ravages of scarlet fever is to be found in the fact that it is mainly a disease of childhood. Out of 148,829 deaths collected by Murchison, 142,337 were of children under 15 years of age. The predisposition to the disease rapidly lessens with the increasing years of childhood. Small-pox, on the other hand, is limited to no age, and, with the possible exception of the earlier months of infancy, no period of life is free from its attacks. The protection of childhood from attacks of scarlet fever will, therefore, as a rule, insure a freedom from the disease during adult life.

It is well known, at least to the medical profession, that scarlet fever, like small-pox, is contagious, and that its existence is due solely to a contagion, mediate or immediate. Its spread from Europe to other countries is directly traceable to commerce. According to Professor Thomas, of Leipsic, who has recently published an admirable history of the disease, it first appeared in Iceland in 1827; in Greenland in 1847; gradually spread over a large portion of Asia, and lastly invaded India. Subsequently it appeared in Africa. In 1735 it had found its way to North America, whence it spread to South America, where the first epidemic took place in 1829. The disease was unknown in Austria until 1849.

If, then, scarlet fever is a disease where victims are far

more numerous than those of small-pox; and if its origin is due solely to contagion, as is known to be the case with variola, why is it not possible to eradicate the disease from a community, as is done with small-pox whenever that disease appears prevalent? Why, moreover, is there not a much greater necessity for so doing, when we remember that it is not only among the dead that we are to seek for the victims of this terrible disease, but also among the living, who are so frequently forced to carry with them through life the traces of a previous illness, — traces far more serious than the mere scars which may denote a preceding attack of variola?

One difficulty, which would be experienced in any attempt to diminish the prevalence of scarlet fever, could be found in the popular opposition which would naturally be at once excited if the Board should attempt to adopt the same rules and regulations in the management of cases of scarlet fever as are willingly acceded to when resorted to for the suppression of small-pox. It is hard to understand, however, why this dread of a disease, whose virulence has been so mitigated by the discovery of vaccination, should still linger in the minds of a people who can yet be brought into almost daily contact with a disease far more destructive, and yet raise no question as to the possibility of a relief from its fatal poison. One can only explain this indifference to one disease and dread of the other by remembering that a tradition of the horrors of small-pox, as it existed before the introduction of vaccination, still lingers in the popular mind, and thus occasions the almost universal fear of a disease the danger of which has been so greatly lessened.

The question of the advisability of adopting measures for the protection of the community against scarlet fever has at length come to present itself to the serious consideration of students of public hygiene in various portions of the world. In Christiania (Norway) it has been proposed to post a notice upon all houses in which a case of the disease is present. It has also been proposed (Reil) to close all houses containing cases. The erection of inexpensive barracks, the isolation of localities and districts suffering from the disease, the removal to hospital of all cases, the quarantining of cases,— these and other similar measures have all been suggested, but, so far as we know, are still *sub judice;* the question of their practicability being the one obstacle to hinder their adoption.

That the spread of the disease is largely carried on through the channels of our public schools there can be no question. The general ignorance which exists in the community as to the proper methods of reducing to a minimum the chances of

still further spreading the disease by contagion, is also a powerful factor in giving an epidemic character to the disease.

During the past year this whole subject has been repeatedly considered by the Board of Health, and at length it was determined to make a move looking towards a reduction in the annual death-rate from the disease. The first step was to include scarlet fever among the diseases which were known to be contagious and dangerous to the public health. Accordingly, the following order was issued by the Board, January 9, 1877: —

OFFICE OF THE BOARD OF HEALTH,
BOSTON, January 9, 1877.

SCARLET FEVER.

WHEREAS, Scarlet Fever is a disease contagious and dangerous to the public health, and whereas it is now prevalent in the City of Boston, therefore the Board of Health issues the following notice: That on and after January 15, 1877, the following provisions of Chapter 26 of the General Statutes will be strictly enforced: —

SECT. 47. When a householder knows that a person within his family is taken sick of . . . . . any . . . . . disease dangerous to the public health, he shall immediately give notice thereof to the . . . . . Board of Health of the town in which he dwells. If he refuses or neglects to give such notice, he shall forfeit a sum not exceeding one hundred dollars.

SECT. 48. When a physician knows that any person whom he is called to visit is infected with . . . . . any disease dangerous to the public health, he shall immediately give notice thereof to the . . . . . Board of Health of the town; and if he refuses or neglects to give such notice he shall forfeit for each offence a sum not less than fifty nor more than one hundred dollars.

And it is hereby *Ordered:*

That no child from any family in which a case of this disease has occurred, or shall hereafter occur, shall, without a written permit from this Board, attend any school in this city until the expiration of four weeks from the commencement of the last case in such family. Such length of time shall be certified in writing by a physician or some responsible member of the family, the certificate to be presented to the teacher of the school before the child is admitted.

Attest: C. E. DAVIS, JR.,
Clerk.

NOTE. — In the notification to the Board of Health, please state the name, age, street, number, and ward where the patient lives.

The order went into effect January 15, and between that time and May 31 there have been reported to the Board 963 cases. Of this number 39, or 4.05 per cent., have died. Lists are daily made out of the names reported, and one of these lists is furnished daily to each truant officer, who sees that the order of the Board, as regards attendance at school, is carried out.

The following circular letter is also at once sent to the family of the patient: —

SCARLET FEVER.

OFFICE OF THE BOARD OF HEALTH,
January 9, 1877.

The Board of Health issues the following circular of recommendations, with the hope that those not familiar with the care of scarlet fever may be benefited thereby.

Scarlet fever is like small-pox in its power to spread rapidly from person to person; it is highly contagious. The disease shows its first signs in about one week after exposure, as a general rule; and persons who escape the illness during a fortnight after exposure may feel themselves safe from the attack.

Scarlet fever, scarlatina, canker-rash, and rash fever, are names of one and the same dangerous disease.

When a case of scarlet fever occurs in any family, the sick person should be placed in a room apart from the other inmates of the house, and should be nursed, as far as possible, by one person only.

The sick-chamber should be well warmed, exposed to sunlight, and well aired; its furniture should be such as will permit of cleansing without injury, and all extra articles, such as window-drapery, woollen carpets, and the like, should be removed from the room during the sickness. The family should not mingle with other people. Visitors to the infected house should be warned of the presence of a dangerous disease therein, and children especially should not be admitted.

On recovery, the sick person should not mingle with others until all roughness of the skin due to the disease shall have disappeared; a month is considered an average period during which isolation is needed. All clothing or bedding worn or used by the patient or the nurse should be cleansed by boiling for at least one hour; or, if that cannot be done, by free and prolonged exposure to out-door air and sunlight. The walls of the room should be dry-rubbed, and the cloths used for the purpose should be burned without previous shaking. The ceiling should be scraped and whitened. The floor should be washed with soap and water, and carbolic acid may be added to the water (one pint to three or four gallons). The infected clothing should be cleansed by itself, and not sent to a laundry.

In case of death from scarlet fever, the funeral services should be strictly private, and the corpse should not be exposed to view.

Because children are especially liable to take and to spread scarlet fever, and because schools afford a free opportunity for this, the Board of Health has excluded from school every child from any family in which a case of the disease has occurred, the absence to continue four weeks from the beginning of an attack (except in cases subject to the discretion of the Board), and the scholar to be readmitted to his school-room on the certificate of a physician that the required time has passed.

The proper blanks can be obtained at this office on application.

C. E. DAVIS, JR.,
Clerk.

To allow for any exceptional case in which a child might with safety be allowed to attend school, the provision, allowing the giving of a written permission to a child, was inserted in

the order of the Board. It was found that the order was not in accordance with one subsequently issued by the School Committee, and therefore no written permissions have been granted, all such cases being at once referred to the School Committee.

Of course, it is yet too soon to state what the practical effects of such a course of procedure will be. The following figures would seem, however, to show that already there has been a marked improvement as regards the mortality from scarlet fever: —

Whole number of deaths from scarlet fever (September 24, 1875, to April 22, 1876, about eight months),	446
Whole number of deaths from scarlet fever (September, 1876, to April, 1877, eight months),	185
Decrease,	261

This period of eight months covers about four months before and four months after the adoption of the order relating to scarlet fever.

The decrease the first four months was	42½ per cent.
The decrease the last four months was	71½ "
Average decrease,	59 "

If this decrease in the number of fatal cases of scarlet fever shall continue at the close of another year, it seems evident that the marked improvement in the death-rate from scarlet fever will prove the wisdom of the course which the Board has adopted.

Quarantine.

The operations of our quarantine for the past year have been successful, and without any unusual changes to mark it as exceptional.

The ordinary summer regulations were put in force on the first day of June, and remained under observance until the first of November, during which four hundred and twenty-one vessels were inspected by the Port Physician.

During the remainder of the year only such vessels are examined as have had during the passage or on arrival here persons sick with some quarantinable disease.

The number of cases of disease dangerous to the public health found on board of vessels arriving in our harbor annually is comparatively small, but of sufficient importance

to require an uninterrupted vigilance through the entire year.

It is also necessary to have in readiness everything that may be necessary for the immediate transfer of patients from vessel to the island, and their comfortable care while at the hospital.

This watchfulness and care at any one port on our coast is not of local interest only, but is of national concern.

The introduction of contagious or infectious diseases into any port may be within a few hours transferred by rail hundreds of miles inland to some city or town where, among unsuspecting people, the seeds of the largest epidemic may be sown, and incalculable misery follow.

For this reason, quite as much as for local protection, a uniform care should be exercised in every port on the coast to guard, by efficient quarantine, against the introduction of pestilence from abroad.

It has been our constant aim to so improve our facilities and accommodations in quarantine that no reasonable complaint could be made as to unnecessary detention of vessels, or as to the comforts and care of patients who fall to our charge.

For the sake of comparison we will briefly state that, six years ago, the only means in the hands of our Port Physician for visiting vessels, in the discharge of his duty, and transferring patients in all kinds of weather from vessel to hospital, was a common row-boat. The frequent humiliation and disgust of the officer in charge of these duties can be understood only by an experience. Seven years ago, not a new or substantial building existed on the quarantine island, although it was well sprinkled with old wooden barracks, which were erected and used for the soldiers during the late war. Some of these barracks, with moderate repairs, served us for hospital uses for several years. The grounds, comprising about fifteen acres, served only to pasture a few young cattle or sheep during the summer. To-day, but one building, out of 20 or 30 standing on the island seven years ago, remains; that, having been almost entirely rebuilt, is in a fair condition.

A new and commodious dwelling-house has been erected; a new barn; another building for blacksmithing, carpentering, and painting (an economical and necessary resort on the island); another for the fowls, and a very neat and substantial ice-house. An oak-pile, three-sided wharf has been built, and upon it a boat-house, for the care of small boats, and a coal-bin, with a capacity of 250 tons, for the convenience of the quarantine steamer.

A new fever hospital is now in process of erection, which, when completed, will afford us more complete means for isolating one class of contagious diseases from another while under treatment.

The banks of the island have been graded and the beaches cleared of *débris*. The graves of 206 persons, who have fallen victims to one or another of the several contagious diseases, have each been marked by neat and appropriate head-boards, with inscriptions giving the name, age, and date of death, and the grounds have been enclosed by a good fence.

The land has been divided into pasturage and tillage grounds; the former, in its improved condition, being sufficient for two oxen, three cows, and a horse, and the latter cutting annually about ten tons of best quality hay, and producing very creditable quantities of potatoes, onions, beets, grain, etc., etc., which are used upon the island and quarantine steamer. With the same industry and good judgment which has been used by the Superintendent in dressing and cultivating this land, a very large increase can still be made in the products of the island.

The accompanying report of the Port Physician gives a full and interesting account of the Quarantine Department for the year, to which we respectfully refer for a detailed account.

Appointments, etc.

On May 7, 1876, Charles E. Davis, Jr., was re-elected Clerk of the Board. We reappointed Samuel A. Green, M.D., City Physician; Alonzo S. Wallace, M.D., Port Physician; and George W. Forristall, Superintendent of Health for the ensuing year, subject to the Mayor's approval.

The reports of the three last-named are hereto annexed.

Dr. Thomas Kittredge, who had courteously and faithfully performed the duties of Port Physician, resigned the office in March last, and William G. Kimball, M.D., was, with our concurrence, appointed Assistant Port Physician by Dr. Wallace.

The sprinkling of streets has been noticed in our annual reports for three years, recommending that the work be done by the city.

We are still of the opinion that this work should be under the charge of the city; that the streets should be wet earlier and later in the season, that more streets should be sprinkled

than now are, and that the expense should be borne by *all* who in person or property are benefited thereby. It seems to us that in both the sanitary and economical sense it would be much better to have the sprinkling of our streets thoroughly done, and as often as the inconvenience or annoyance of the dust and the waste of gravel may demand.

Our acknowledgments are due to Orin Barker, of the U. S. Signal Service, for furnishing us with daily reports of meteorological observations during the past year, and for the courtesy and promptness with which he has at all times responded when called upon for information.

REGULATIONS.

The following regulations have been made by us, and are now in force: —

CONCERNING FRUIT.

No person shall sell, or offer for sale, or have in his possession with intent to sell, in this city, any unwholesome, decayed or stale fruit or vegetables. — (August 1, 1874.)

CONCERNING HIDES AND HORNS.

Ordered, That from the first day of April to the first day of November, no green hides or horns shall be cured, stored, or be suffered to remain within the limits of the city, without a written permit from the Board of Health.

This order to take effect on the thirty-first instant. — (May 7, 1875.)

CONCERNING THE REMOVAL OF MANURE.

Ordered, That no manure shall be removed except in a tight canvas-covered vehicle, with the covering so secured to the sides and ends of the vehicle as to prevent the manure from being dropped or left in any street or way of the city, in process of removal, nor loaded in or upon any street, lane, or passage-way, nor upon or across any sidewalk.— (May 10, 1875.)

CONCERNING LEAKY CARTS.

Ordered, That no persons moving manure, house offal, swill, or filth of any kind, shall suffer it to leak or escape from any vehicle by him owned or driven, in or upon any street, court, square, lane, alley, wharf, or public enclosure, in the City of Boston. — (May 12, 1875.)

CONCERNING BURIALS.

Ordered, That on and after October 1, 1875, the Superintendent, or any person authorized to receive or bury the body of any deceased person in any burial-ground within the limits of the City of Boston, shall, as often as once in each week, report to the Board of Health of said city, the number of burials in the ground under his charge during the preceding week, together with the date of the burial, the number of the permit for burial, the name of the deceased and the name of the undertaker or other persons having charge of the body when brought to said ground or burial.

Any failure to comply with the foregoing order will subject the offender to prosecution and a penalty not exceeding one hundred dollars. — (September 10, 1875.)

CONCERNING RENDERING.

By virtue of the authority given by Chapter 26 of the General Statutes, the Board of Health of the City of Boston makes the following regulation: That on and after Nov. 30, 1875, the trade or employment of slaughtering cattle, calves, sheep, or swine, or of rendering tallow or other refuse animal matter, shall not be carried on within the limits of the City of Boston, except on the islands of the harbor or at the abattoir in the Brighton District, or at such other place or places as may hereafter be assigned by the Board of Health. — (November 6, 1875.)

CONCERNING STREET SPRINKLING, ETC.

That on and after August 1, 1876, no filthy or offensive water shall at any time be sprinkled, poured, thrown, or put upon any street of the city.

Any violation of this regulation will subject the offender to prosecution and a fine not exceeding one hundred dollars. — (July 28, 1876.)

CONCERNING THE KEEPING OF COWS.

That no person shall keep or allow to be kept in any building, or on any premises of which he may be the owner, lessee, tenant, or occupant, more cows than at the rate of one for each 3,000 square feet of land, in or near the built-up portion of the city, without a written permit from the Board of Health.

Every person keeping a cow shall cause the place where it is kept to be well ventilated and drained, and kept at all times in a cleanly and wholesome condition. — (July 28, 1876.)

CONCERNING THE REMOVAL OF RUBBISH, ETC.

Ordered, That no person removing earth, dirt, sawdust, soot, ashes, cinders, shavings, hair, shreds, manure, oysters, clams, or lobsters, waste water, or any animal or vegetable substance, house offal, swill, rubbish, or filth of any kind whatsoever, shall suffer it to leak, escape, or drop from any vehicle by him owned or driven, into or upon any street, court, square, lane, alley, wharf, or public enclosure in the City of Boston. — (September 8, 1876.)

CONCERNING SCARLET FEVER.

Ordered, That no child from any family in which a case of scarlet fever has occurred, or shall hereafter occur, shall, without a written permit from this Board, attend any school in this city until the expiration of four weeks from the commencement of the last case in such family. Such length of time shall be certified in writing by a physician, or some responsible member of the family, the certificate to be presented to the teacher of the school before the child is admitted. — (January 9, 1877.)

The following is a statement of the expenses and income of this department during the year: —

Board of Health	$12,000 00	
Clerk-hire	4,800 00	
Inspector of Nuisances	11,600 00	
Horse and vehicle, Board of Health	510 94	
Stationery	292 72	
Printing	1,724 55	
Advertising	324 15	
		$31,252 36
Abatement of nuisances		6,379 41
Small-pox		1,683 82
Public urinals		4,368 48
Building new urinals		244 00
Burial-grounds		5,013 93
City Physician and assistant		4,200 00
Inspector of Provisions		2,000 00
Evergreen Cemetery		2,266 64
Horse and vehicle, City Physician		420 26
Contingencies		1,335 01
Removal of night-soil (clerk-hire)		1,017 00
Total expended		$60,180 91

INCOME.

Abatement of nuisance, etc.	$957 29	
Licenses	167 00	
Evergreen Cemetery	1,042 00	
		$2,166 29

QUARANTINE DEPARTMENT.

Port Physician and assistant	$1,900 00
Subsistence for assistant	365 00
	$2,265 00

Gallop's Island.

Salaries, Supt. and assistants	$1,740 47	
Subsistence	1,235 38	
Supplies	276 12	
Repairs and grading	350 90	
Medicines	35 00	
Other expenses	400 00	
		4,037 87
Amount carried forward,		$6,302 87

Amount brought forward,		$6,302 87

Steamer "Samuel Little."

Salaries, captain and crew	$3,900 00	
Subsistence	649 38	
Fuel	466 25	
Water-rates	100 00	
Repairs, painting, etc.	5,148 11	
Other expenses	92 39	
		10,356 13
Stationery	3 75	
Printing	21 49	
Advertising	10 50	
		35 74
		$16,694 74

INCOME.

Amount of fees collected from vessels	$2,590 00
Board and medical care of patients	104 25
For vegetables	43 55
Amount left over from last year	16 00
Total	$2,753 80

RECAPITULATION.

Appropriated: —		
Board of Health	$83,000 00	
Evergreen Cemetery	800 00	
Quarantine Department	16,700 00	
		$100,500 00
Expended: —		
Board of Health	$58,270 27	
Evergreen Cemetery	2,266 64	
Quarantine Department	16,694 44	
		77,231 35
Unexpended		$23,268 65

INCOME.

Board of Health	$1,124 29
Evergreen Cemetery	1,042 00
Quarantine Department	2,753 80
	$4,920 09

All of which is respectfully submitted.

SAMUEL H. DURGIN, M.D., *Chairman.*
ALONZO W. BOARDMAN.
HENRY G. CROWELL.

REPORT OF THE CITY PHYSICIAN.

SAMUEL A. GREEN, M. D.

REPORT OF THE CITY PHYSICIAN.

City Physician's Office, May 1, 1877.

To the Board of Health: —

Gentlemen, — I have the honor to submit the following report of this office for the year ending April 30.

There have been 1,287 persons vaccinated, of which number 6 were revaccinated. Certificates of vaccination have been given to 632 children for their admission into the public schools. Vaccine virus has been furnished to 25 physicians, residents of the city. Visits have been made to the jail daily, or oftener, as the occasion required, and 1,114 prisoners have been examined for complaints, real or feigned. The sick at the City Prison, and at the Temporary Home, have been seen whenever it was necessary. At the Home, 324 visits have been made during the year; two births and two deaths have occurred in the same period. I have made at different police-stations 128 visits, to see prisoners and others who required medical attendance. These cases, for the most part, have been surgical ones, and have occurred generally in the night-time.

At the request of the Chief of Police, I have examined 22 candidates for the police force, to see if they were physically qualified to perform the duties of the office; and, under a similar request from the Fire Commissioners, I have examined 46 applicants for the Fire Department.

I have seen, also, during the year, 307 bodies of persons who have died without a physician in attendance during their last illness. These cases comprise principally those who die from chronic disease when there has been no medical care for months before death, and those who die suddenly. They include, also, those who die at birth, or soon after, with no physician to make the necessary returns. In such instances a careful examination is made, the symptoms learned, and a diagnosis reached sufficient for all practical purposes. The law requires a medical certificate of death before a permit is granted to bury a body; and these exami-

nations are made to conform with the law, as well as to collect the statistics for the bills of mortality.

In conclusion, I wish to speak of the pleasant relations existing between the members of your Board and myself, which have contributed largely to lighten the labors of my office; and I wish, also, to acknowledge the faithful services of my assistant, Dr. McCollom.

Very respectfully, your obedient servant,

SAMUEL A. GREEN, M.D.,
City Physician.

REPORT OF THE PORT PHYSICIAN.

ALONZO S. WALLACE, M. D.

REPORT OF THE PORT PHYSICIAN.

To the Board of Health: —

Gentlemen, — The fifth annual report of the Port Physician is herewith respectfully presented. During the year there has been comparatively little sickness of a contagious character found on vessels.

Of the four hundred and twenty-six vessels examined, thirteen only were placed in quarantine; eight were detained either because of sickness or death during the passage, or on account of having sailed from an infected port; the other five had sickness on board on their arrival here.

The schooner "Geo. K. Hatch," arriving August 19 from Havana; the steamer "Seminole," arriving September 14 from Savannah, Ga.; and the schooner "R. and J. Freeman," arriving March 30 from San Domingo, had each one case of yellow fever on board.

The steamer "Seminole" was detained five days, in order to disinfect the vessel and cargo.

The schooner "Mabel Rose" arrived at quarantine November 28 from Philadelphia, from which four of the crew were removed, two being sick with small-pox and the others having been exposed. The brig "E. A. Bernard" arrived July 4, from Sagua la Grande, with the captain's wife sick on board with typhus fever. She had been suffering eleven days, was too sick to be removed, and died in a few hours. The body was taken to Gallop's Island, and prepared for removal to her home.

The length of time these vessels were detained varied from ten hours to five days.

The quarantine register shows the following record of vessels examined during each month, for the year 1876, commencing June 1st and ending October 31st.

June.

Steamers	8
Ships	5
Barks	27
Brigs	26
Schooners	52
Total	118

July.

Steamers	11
Ships	5
Barks	15
Brigs	26
Schooners	24
Total	81

August.

Steamers	12
Ships	0
Barks	14
Brigs	15
Schooners	24
Total	65

September.

Frigate	1
Steamers	12
Ships	4
Barks	22
Brigs	23
Schooners	39
Total	101

October.

Steamers	11
Ships	1
Barks	11
Brigs	13
Schooners	20
Total	56

November, December, and March.

Steamers	2
Ships	0
Barks	0
Brigs	1
Schooners	2
Total	5

RECAPITULATION.

Frigate	1
Steamers	56
Ships	15
Barks	89
Brigs	104
Schooners	161
Total	426

Amount of fees collected from vessels	$2,590 00
For board and medical care of patients	104 25
For vegetables	43 55
Amount left over from last year	16 00
Total	$2,753 80

One vessel included in the foregoing list was a ship-of-war, and by courtesy passed without fee. There were also one brig and two schooners, from which fees could not be collected.

The vessels examined at this station during the past year, hailed from the following ports: —

West Indies and Bermuda	199
Great Britain and Ireland	68
Coastwise (including Gulf of Mexico)	49
South American	24
Mediterranean	19
East Indies	17
France, Spain, and Portugal	13
East coast of Africa	8
West coast of Africa (including Cape de Verde Islands)	7
Azores	7
Russia	5
Norway	4
Holland	3
Persia, Belgium, and Germany, each 1	3
Total	426

The following table has been prepared, for the purpose of showing the number of vessels and passengers which have been examined at this station, from 1863 to 1876, inclusive: —

Years.	No. Vessels.	No. Passsengers.
1863	228	1,765
1864	No record.	No record.
1865	320	2,188
1866	668	6,481
1867	306	401
1868	376	513
1869	333	6,894
1870	530	13,225
1871	540	11,828
1872	348	12,890
1873	625	13,822
1874	589	11,017
1875	504	6,754
1876	426	4,649
Total in 13 years,	5,793	92,436

During the year there have been admitted to Gallop's Island hospital sixteen patients.

From vessels, three cases of yellow fever, two of small-pox, and two supposed to be infected. The remaining nine were from the city; six having small-pox and three being considered as infected persons. All of the cases of yellow fever recovered; three small-pox patients died and five recovered.

Some interesting facts are connected with two of the small-pox patients, both claiming to have had the disease before.

The following will serve as a brief record of each case: —

Case 1. Female; aged 22; was admitted with small-pox; had been vacinated in infancy and presented one fair cicatrix; states that she had small-pox nine years ago, and exhibited good cicatrices as proof; recovery took place; length of time in hospital, ten days.

Case 2. Male (colored); aged 27; was admitted with small-pox; had been subjected to vaccination in infancy, and as the result possessed two good cicatrices; states that he had small-pox ten years ago and showed sufficient evidence of it; recovery resulted; length of time in hospital, twenty-four days.

The history of these cases seems to show that susceptibility to small-pox, destroyed by vaccination or by the disease itself, may subsequently return.

The small-pox hospital has been whitewashed inside and out, and painted inside. It is not a substantial building, and, as it is gradually settling, I would recommend that it be

raised, the rotten sills removed, and new ones substituted. Unless this be done, it will, in a few years, be unfit for use.

I would suggest that this hospital be occupied the whole year by nurses, in order that it may be in a suitable condition for the admission of patients, and in a state of preparation better adapted to the immediate wants of the sick than is the case when it has been closed during the absence of sickness. The occupants of this building would also have the care of the other hospital on the island, and keep it in a proper condition for the reception of patients.

There is now in course of erection a hospital building, 60 feet by 20, for the accommodation of yellow-fever and ship-fever patients. It will be so arranged that the two diseases can be kept entirely separate.

When this building is completed we shall have accommodations for the proper isolation and treatment of three quarantinable diseases.

We have on hand ten hospital tents, that can be used in case of cholera.

The following is an inventory of furniture, bedding, crockery, etc., in hospital use, and stored at Gallop's Island: —

Bedsteads (wooden)	158	Knives	34
" (iron)	44	Forks	61
Chairs	50	Spoons	72
Stands	54	Coffee-pots	10
Stoves	10	Lanterns	5
Bath-tubs	3	Lamps	3
Earth-closets	5	Flat-irons	8
Urinals	28	Mattresses (hair)	72
Bed-pans	18	" (husk)	125
Chambers	84	Pillows (feather)	21
Pitchers	8	" (hair)	56
Spit-cups	32	" (husk)	91
Feed-cups	11	Pillow-cases	53
Wash-bowls	3	Blankets	229
Wash-basins	5	Sheets	58
Bowls	24	Pillow-ticks	58
Mugs	106	Bed-ticks	10
Plates	45	Towels	7
Platters	5	Curtains	66

The cultivated land, under the faithful supervision of Mr. Severance, overseer, has, in many respects, yielded larger returns this year than ever before.

The amount of hay and of potatoes raised is less than last year, because of severe drought and the potato-bug injury.

The chief articles produced on the island, and the quantity of each, are as follows: —

Hay	8 tons.
Corn fodder	3 "
Oats	74 bushels.
Potatoes	150 "
Beets (including mangolds)	300 "
Onions	85 "
Tomatoes	35 "
Apples	30 "
Cabbages	75 heads.
Pumpkins	175

The dairy has supplied the island and steamer with milk, but has not, as in former years, furnished the requisite amount of butter, owing to the loss of the most valuable cow early in the summer. The remaining cow was exchanged for a new milch one, and another bought to take the place of the one that died.

Butter-making commenced in September, and from that time until the first of April, 154 pounds were produced.

On account of the small amount of hay raised, the oxen were exchanged for a young pair. The live stock at the present time comprises one horse, two oxen, three cows, five pigs, and about sixty-five hens.

Another much-needed building has been added, — an ice-house 21½ feet by 15¼, which has been stocked with ice from Deer Island, through the kindness of the Superintendent, Mr. Underwood.

The barn cellar, which was somewhat improved last year, has been still further enlarged and improved, so that now a suitable place is provided for storing all of the vegetables.

In the carpenter and paint shops, built last year, there has been a sleeping-room finished for the male help. The small buildings and alterations have been made by help on the island, and at very small cost to the city.

A good road has been constructed from the dwelling-house to the barn, a distance of 413 feet.

The cultivated portion of the island has been separated from the pasture-land by a substantial fence one hundred and three rods in length. The grave-yard has also been surrounded by a neat paling, forty-three rods in length. That portion of land which extends either side of the wharf, more especially towards the hospital buildings, was of a stony character, and would not readily shed water in a wet season. It has been graded, several hundred loads of loam put

upon it, and sown with grass seed, thus adding much to its value and appearance.

Some changes for the better have been made in the dwelling house, by the addition of a water-closet to the bath-room, and the cementing of the floor in the cellar.

The quarantine steamer has undergone several repairs and changes during the winter. The boiler having become unsuitable for further use, it was replaced by a new one. And another change which contributes greatly to the comfort of the crew was the raising of the pilot-house, and the construction of a cook and dining room underneath. This affords ample room below for the crew.

It gives me pleasure to acknowledge my indebtedness to Guy C. Underwood, Esq., Superintendent of the Deer Island Institutions, for many courtesies and favors.

Dr. Thomas Kittredge, who has been Assistant Port Physician for a year and a half, resigned March 31, 1877, to enter upon private practice. Dr. Kittredge was a faithful, efficient, and courteous officer, and carries with him the respect and good wishes of all connected with this department. Dr. William G. Kimball was appointed Assistant Port Physician, April 1, 1877.

In laying this report before you, gentlemen, it gives me pleasure to speak of the faithfulness of all officers employed in this department, also to express my thanks to you for the good counsel and encouragement which have at all times been extended to me.

Respectfully,

ALONZO S. WALLACE, M. D.
Port Physician.

QUARANTINE STATION, DEER ISLAND,
BOSTON HARBOR, May 1, 1877.

EXPENDITURES

OF THE

HEALTH DEPARTMENT.

EXPENDITURES OF THE HEALTH DEPARTMENT.

HEALTH OFFICE, CITY HALL, May 1, 1877.

TO THE HONORABLE BOARD OF HEALTH: —

Gentlemen, — In conformity with the Ordinance relating to Health, I herewith submit my report of the expenses of this department for the year ending April 30, 1877.

Amount appropriated	$413,000 00
Amount expended	365,928 39
Balance, May 1, 1877	$47,071 61

The above amount of $365,928.39 was expended as follows: —

For money paid for labor in sweeping and cleaning the streets, and in the removal of snow and ice from public walks, yards, and squares	$96,784 78
Paid for labor in the collection and removal of house offal from hotels, houses, stores, restaurants, in city proper, South Boston, Dorchester, Highlands, and Charlestown. .	61,530 62
Paid for labor, collection and removal of house-dirt and ashes in city proper, South Boston, Highlands, Dorchester, and Charlestown, .	92,539 09
Paid for labor in the cleaning cesspools in city proper, South Boston, East Boston, Highlands, and Dorchester	14,581 33
Official roll of office, including Milk Inspector's Department	8,500 00
Foreman, feeders, blacksmiths, wheelwrights, watchmen, painters, harness-makers, and drivers of prison carriages	24,598 50
For grain used at city stables, south and west, Boston Highlands and Charlestown . .	15,787 18
For hay and straw used at city stables, south and west, Charlestown and Boston Highlands,	12,113 30
Amount carried forward	$326,434 80

Amount brought forward, ...		$326,434 80
For the collection and removal of ashes in East Boston		6,199 50
Purchase of new horses and exchanges . .		12,340 00
For stock and tools of blacksmith shops . .		2,127 82
Stock and tools of wheelwright shop . .		1,354 43
Stock and tools of harness shop . . .		1,401 35
Paints, oils, varnishes and brushes . . .		846 68
Extra team-work in collecting ashes, etc. .		579 00
Repairs on stables, south, west, and Boston Highlands		511 28
Fuel and gass for city stables . . .		1,178 12
East Boston ferry-pass for men and teams .		275 00
Medical attendance on horses, and horse medicines		422 36
Milk Inspector's office, for analysis of milk, stationery, advertising, etc.		351 33
Sawing and planing cesspool and other stock		226 23
Shoeing horses, West-end stable and Charlestown		378 83
Printing bill-heads, notices, blanks, etc. . .		262 54
Stationery for office and stable uses . . .		119 00
Advertising		26 00
Stock for making street brooms . . .		686 61
For the collection and removal of house-offal from East Boston, as per contract . .		3,000 00
For the collection and removal of house-offal from West Roxbury		1,500 00
Incidental expenses as follows: —		
Refreshments and carriage-hire .	$495 25	
Paid Mr. Harrington for injuries received from being bitten by a dog	100 00	
Lard, oil, vinegar, salt, matches, flour, stove-polish, etc. . .	70 77	
Oil and axle grease . . .	53 44	
Stabling horses at East Boston and West Roxbury . . .	57 60	
Ticking, sheeting, netting, cotton and crash	43 36	
Directories, office use . . .	27 50	
Buffalo-robes	16 50	
Amounts carried forward . .	$864 42	$360,220 88

Amounts brought forward .	$864 42	$360,220 88
Washing bedding and towels, city stables	15 00	
Repairing clocks and clock-dials .	12 70	
Repairing stoves . . .	12 30	
Boston Ice Company . . .	12 00	
Daily Advertiser (office) . .	12 00	
Repairing gate broken by city team	10 76	
Timber scribe, locks, hinges, keys, handles, shot, and blacking .	10 41	
Rubber hose cover . . .	6 50	
Weekly dial, office use . .	5 40	
Carriage cushion . . .	5 00	
Water-cooler (office) . . .	4 75	
Umbrella for open buggy . .	4 00	
Blacksmiths' repairs on sundry vehicles	3 25	
Soft soap	1 50	
Adjusting city scales . . .	1 36	
		981 35
Water-rates, 1877		1,256 30
Shovels, baskets, and canvas covers for carts, etc. (Ash Department)		260 68
Springs, flanges, manure-forks, hose, plate, buckets and bucket-bottoms, bails, etc. (Offal Department)		184 70
Poles, shovels, street hoes, oil, broom-cord, hose, pick-handles, lifter, and repairs on street-sweepers (Street Department) .		1,947 40
Overalls, frocks, buckets, hoes, cesspool boots, and lumber for cesspool covers .		579 52
Stock for stables, consisting of curry-combs, brushes, sponge, soap, blankets, manure forks, etc.		497 56
Total amount expended . . .		$365,928 39

There have been deposited for collection during the year bills amounting to $26,890 53

There have been paid into the City Treasury, and the amount credited this department, for material sold during the same period, as follows: —

Sale of ashes	$15,379 87
" filling	1,698 10
Removing ashes	2,081 74
Old material sold	625 36
Manure sold	985 25
Street dirt sold	1,640 79
Labor (removing ashes)	29 44
Conveying prisoners	2,375 25
Offal sold	30,255 53
Cleaning cesspools	15 00
Entering sewer (Cove place)	50 00
Total amount collected	$55,136 33

Prison Carriages.

There have been conveyed during the past year from the several station-houses to the city prison under the court-house, for which the Police Department is charged 25 cents per head: —

7,119 males; 2,382 females. Total, 9,500.

Conveyed without charge (county prisoners), as follows: —

From Court-house to Jail	2,336
" Jail to Court-house	808
" Court-house to House of Correction	311
" Court-house to Deer Island boat	5,607
" East Boston to House of Correction	28
" East Boston to Jail	104
" Jail to East Boston	42
" East Boston to Deer Island steamer	215
" South Boston to Deer Island steamer	664
" South Boston to Jail	176
" Jail to Court at South Boston	52
" South Boston to House of Correction	35
Total number conveyed	10,378

The sexes are conveyed in separate vehicles.

Ashes, Street Dirt, etc.

Collected by city teams: —

No. loads of ashes	112,722
" " street dirt.	52,967
" " cesspool matter	10,208
Total	175,897

The teams owned and employed in this department are as follows : —

55 carts for ashes.
29 " street dirt.
42 wagons for offal.
12 " cesspools.
9 sweeping machines.
3 prison carriages.
6 water-carts.
1 market team.

ASHES

from hotels, tenement houses, and stores are collected by the city teams twice in each week, and from dwellings once a week. Bills for the sale of ashes and other material are forwarded to the City Collector.

HOUSE OFFAL

from dwellings is collected three times a week during the summer, and twice in each week during the winter; from hotels, markets, and restaurants it is collected daily.

CESSPOOLS

belonging to the city are cleaned by this department, and their contents conveyed to some dump, and there immediately covered with ashes.

CESSPOOL COVERS.

876 new cesspool covers have been furnished to supply the place of such as have been found defective.

STREET-CLEANING.

During the season of street-cleaning the principal thoroughfares are swept daily, and others twice in each week. Occupants of stores and offices are requested to comply with our regulations, and cause their sweepings to be placed in proper vessels on the sidewalks, to be removed by city teams on fixed days.

SCHEDULE OF CITY PROPERTY

In the South, West, Boston Highlands, and Charlestown Stables.

198	horses with harnesses, at $300	$59,400 00
4	express harnesses, at $25	100 00
9	light harnesses, at $25	225 00
2	spare lead harnesses, at $15	30 00
1	breast harness (lead)	20 00
13	collars, at $1.50	19 50
51	pairs hames, at $6	306 00
6	new bridles, at $7	42 00
11	martingales, at $1.12½	12 37
2	hoisting harnesses, at $25	50 00
227	halters, at $1.25	283 75
167	strings sleigh-bells, at .75	125 25
58	shaft girths, at $1.75	101 50
9	pairs reins, at $3.25	29 25
6	sweat-collars, at $2	12 00
20	collar-pads, at .20	4 00
10	horse slings, at $1	10 00
1	new breast harness	75 00
10	new cart saddles, at $21	210 00
3	new offal saddles, at $15	45 00
2	old cart saddles, lot	8 00
13	offal breechings, at $7	91 00
6	rubber horse covers	5 00
13	pair new winkers, at $2.50	32 50
14	pair hip ornaments, at .25	3 50
2	pair check-reins, at $1.50	3 00
13	iron hame-fasteners, at .50	6 50
52	hame-straps, at .50	26 00
185	woollen blankets, with girths, at $2.50	462 50
142	carts for collecting ashes and street dirt, at $100	14,200 00
59	one-horse wagons for collecting house offal, at $125	7,375 00
14	one-horse cesspool wagons, at $150	2,100 00
	Amount carried forward	$85,413 62

	Amount brought forward	$85,413 62
5	express wagons, at $75	375 00
3	open offal wagons, at $75	225 00
28	cart wrenches, at $1.50	42 00
6	vehicles for conveying prisoners	1,200 00
8	open wagons, at $100	800 00
1	old chaise	5 00
1	hay-rigging	75 00
3	top buggies, at	150 00
3	covered carriages	200 00
161	sleds for conveying ashes and offal, at $50,	8,050 00
7	sleighs, at $75	525 00
3	pungs	25 00
2	hand-sleds for removing snow, at $3	6 00
8	drag boxes for same purpose, at $1	8 00
45	snow-drays, at $1	45 00
1	scraper, at $10	10 00
2	snow ploughs, at $10	20 00
1	ice-plane	10 00
13	sweeping-machines, at $250	3,250 00
100	lbs. No. 2 reeds	20 00
11	brush rolls filled with flanges, at $25	275 00
4	brush rolls without flanges, at $24	96 00
3	lbs. brace thread, at .40	1 20
1	lot sweeping machine patterns	10 00
11	brush flanges, at $2	22 00
1	set composition boxes with oil cups,	5 25
6	composition crank eccentrics, at $2.25	13 50
2	composition pawe-lifters, at .75	1 50
24	oil cups, at .12	2 88
39	oil tubes, at .10	3 90
1	pitch pan and table,	10 00
40	lbs. pitch	1 00
527	lbs. bass, at .13	68 51
1	hay-cutter for cutting bass	10 00
9	water-carts, at $250,	2,250 00
188	offal chisels, at $2	376 00
95	offal buckets, at .50	47 50
7	offal tubs, at $1.50	10 50
10	water-pots (lot)	5 00
5	goose-necks,	50 00
7,522	bundles broom stuff, at .08	601 76
69	baskets (lot)	15 00
52	ice chisels, at $2.50	130 00
57	dipping-poles, at $2.	114 00
	Amount carried forward	$104,575 12

	Amount brought forward	$104,575 12
86	cesspool hooks, at $1	86 00
13	cesspool tools, at $3	39 00
287	lbs. axle grease, at .10	28 70
5	tool-houses, at $15	75 00
6	lanterns	2 00
109	cart covers, at $1	109 00
20	cart covers, new, at $2.50	50 00
1	clipping machine	3 00
$54\frac{1587}{2000}$	tons hay, at $20.50	1,123 26
$30\frac{1804}{2000}$	tons straw, at $22.50	699 79
128	lbs. oats, at .60 per bushel	2 40
400	lbs. meal, at .65 per bushel	5 20
300	lbs. shorts, at $1.50	4 50
147	old street hoes, at .25	36 75
122	steel and iron shovels (new), at $1.50	183 00
386	" " " (old), at .50	193 00
320	" " " at $1	320 00
242	" hoes, at $1.25 (new)	302 50
2	rammers, at $3	6 00
5	hay-cutters, at $60	300 00
6	six-tined forks, at $2	12 00
208	water-pails, at .50	104 00
51	manure-forks, at .50	25 50
23	hay-forks, at $1	23 00
3	pair steps, at $3	9 00
2	stagings	20 00
2	window-frames	5 00
1	spare tool-chest	10 00
6	spare grain-chests	50 00
23	manure-hooks, at .50	11 50
5	feed-troughs and tools	150 00
	Lot horse medicines	10 00
3	wheelbarrows	10 00
1	rubber hose	15 00
1	lot leather hose	100 00
4	tackle and falls	100 00
110	lbs. sponge, at $1.50	165 00
1	dust-brush	1 00
12	gallons neats-foot oil	10 00
2	furnace and copper boilers	100 00
2	hoisting blocks	4 00
1	copper boiler	10 00
1	lot straw matting	20 00
3	gas-lighters	5 00
	Amount carried forward	$109,114 22

	Amount brought forward	$109,114 22
3	dripping pans	20 00
26	four-tined forks, at $1.00	26 00
1¼	doz. corn brooms, at $4	5 00
13	hay-hooks, at .25	3 25
85	lbs. castile coap, at .15	12 75
5	zinc-iron hods	2 00
268	curry-combs and brushes (lot)	50 00
300	lbs. chloride of lime, at .06	18 00
300	lbs. copperas, at .06	18 00
2	iron bedsteads	10 00
4	ladders	10 00
4	grease-jacks	20 00
1	watch-clock	25 00
1	" "	25 00
7	hydrant wrenches, at $3	21 00
2	composition hydrant chucks,	150 00
1	feather duster	1 00
3	reflector lanterns	10 00
32	lbs. rubber packing, at .75	24 00
3	carriage covers	5 00
	Stock and tools in wheelwright's shop	200 00
196	cesspool covers, at $1.12½	220 50
398	broom-handles, at .50	199 00
144	offal bucket bottoms, at .06¼	9 00
1	keg 60 doz. buttons, at .06	3 60
25	doz. new offal buckets, at $8	20 00
8¼	doz. bucket handles, at .75	6 19
116	old cart hind-boards, at .75	87 00
1	brass flange for offal wagon	3 25
2,000	feet oak boards, at $50	100 00
10,500	" " at $50	530 00
1,400	spruce boards, at $16 per M	22 40
112	mauls, at .25	28 00
71	scrapers, at .10	7 10
150	feet of hickory, at .10	15 00
3	sets light wheels	75 00
133	hubs, at $1	133 00
2,000	feet unfinished stock, at .10 per foot	200 00
515	felloes, at .16	82 40
2,970	spokes, at .14	415 80
5,126	feet Canada pine, at $55 per M	281 93
3½	sets offal-wagon wheels	150 00
4	sets buggy hubs, at $1.25	5 00
2	pair cart-wheels	70 00
	Amount carried forward	$112,434 39

	Amount brought forward . . .	$112,434 39
8	sets light rims	32 00
6½	pair buggy shafts, at $1.66⅔ . . .	10 83
350	light spokes, at .15	52 50
1	lot of wood screws and tacks . . .	10 00
66	lock sticks, at .75	49 50
50	pairs finished shafts, at $5 . . .	250 00
2	steam-boxes	10 00
158	hind-boards to carts, at $2.25 . .	355 50
3	grindstones	10 00
1	pair hub rammers	30 00
1	lot old wheels	20 00
2	cross-cut saws	16 00
690	feet of ash, at .08	55 20
150	feet spruce planks, at $16 per M . .	2 40
885	feet of cypress boards, at .05½ . .	48 67
5	old offal bodies	25 00
1	pair iron hub wheels	36 00
	Stock and tools in blacksmith's shop .	500 00
2	set rubber cesspool springs . . .	100 00
5	crowbars, at $2.	10 00
46	pickaxes, at $1.50	69 00
	Lot iron gutters	70 00
3,187	lbs. cart and wagon axles, at .05¾ .	183 25
744	wagon springs, at .16 . . .	119 04
50	lbs. patent shoes, at .07 . . .	3 50
302	" shoe nails, at .02⅓ . . .	61 67
293	" cast steel, at .16 . . .	46 88
29,028	" refined iron, at .02⅙ . . .	628 94
3,565	" Norway iron, at .05½ . . .	196 07
2,093	" corking steel at .8¾ . . .	183 14
21,305	" old horse shoes, at .01 . . .	213 05
11,948	" old iron, at .01	119 48
2,035	" band iron, at .03 1/11 . . .	62 90
282	" cast iron sled shoes, at .05 . .	14 10
110	" spring steel, at .08¾ . . .	9 62
4,283	" horseshoe iron, at $100 per ton .	214 15
200	two-inch shaft nails (lot) . . .	1 50
3,739	lbs. sharpened shoes (new), at .12 .	448 68
3,838	lbs. toed and heeled shoes (new), at .10½	402 99
3,710	lbs. smooth shoes (new), at .09 . .	333 90
328	lbs. bar shoes (new), at .14 . . .	45 92
2	sets brand irons	5 00
¼	doz. farriers' knives, at $13 . . .	3 25
18	hammer-handles, at .16⅔ . . .	3 00
	Amount carried forward . . .	$117,497 02

	Amount brought forward	$117,497 02
2,000	3-in. dog nails, at .75	1 50
2	sets numbers	5 00
203	lbs. old wagon springs, at .05	10 15
1	wheel machine	25 00
1	boring machine	25 00
1	tire upsetter	25 00
1	tire bender	10 00
1	lot bolts, rivets and lag screws	97 03
1	lot horse rasps and files	29 26
1	drilling machine	15 00
1	set small scales	3 00
	Stock and tools in harness shop	150 00
6	carriage weights, at $1.50	9 00
4	muzzles, at $2	8 00
1	horse-duster	1 00
25	new blankets (carpeting), at $5	125 00
6	knee robes	15 00
8	buffalo robes	50 00
1	wool-skin	3 00
4	14-in. cart trees, at $3	12 00
130	lbs. buffalo hair, at .10	13 00
		$118,128 96

Horse Stock Account.

1876.		
May 1.	On hand,	187
" 9.	Purchased,	3
June 20.	"	3
July 1.	"	1
" 17.	"	1
Aug. 14.	"	1
" 16.	"	1
" 15.	"	3
Dec. 4.	"	2
1877.		
Feb. 20.	"	4
Mar. 12.	"	2
April 16.	"	8
" 18.	"	2
" 16.	"	2
		220

1876.		
May 12.	Killed,	1
June 20.	Exchanged,	1
July 17.	"	1
" 17.	Died,	1
Aug. 10.	Killed,	1
" 10.	Died,	1
" 14.	Exchanged,	1
Nov. 8.	Killed,	1
" 17.	Died,	1
Dec. 4.	Exchanged,	3
" 5.	Died,	1
" 21.	"	1
1877.		
Feb. 9.	Killed,	1
" 17.	"	1
Apr. 16.	Exchanged,	2
" 20.	Transfer Mt. Hope,	1
Apr. 27.	Transfer Mt. Hope,	1
Apr. 27.	" Deer Island,	2
Apr. 23.	Sold,	1
May 1.	On hand,	197
		220

Respectfully submitted,

GEORGE W. FORRISTALL,
Superintendent.

ORGANIZATION OF THE BOARD OF HEALTH.

SAMUEL H. DURGIN, M.D., *Chairman.*
ALONZO W. BOARDMAN.
HENRY G. CROWELL.

CHARLES E. DAVIS, Jr., *Clerk.*

Officers of the Board of Health.

GEORGE W. FORRISTALL, *Supt. of Health.*
SAMUEL A. GREEN, M.D., *City Physician.*
JOHN H. McCOLLOM, M.D., *Asst. to City Physician.*
ALONZO S. WALLACE, M.D., *Port Physician.*

FRANK W. DRAPER, M.D.,
WILLIAM L. RICHARDSON, M.D., } *Medical Inspectors.*

CONTENTS.

	PAGE
Abattoir, Regulations for the Government of	22
Adulteration of Food	23
Ambulance for Public use	12
Appointments	64
Cellars	5
Cemeteries	17
City Physician, Report of	71
Diphtheria	47
Financial Statement	67
Fish-pedlers, etc.	10
Hides and Horns	11
Houses Vacated	9
Infant Boarding	16
Inspection of Provisions	19
Lying-in Hospitals	17
Mortality Statistics	28
Nuisances and Tenement-houses	7
Port Physician, Report of	75
Prosecutions	10
Public Ambulance	12
Public Urinals	10
Quarantine Department	62
Regulations	65
Removal of Night-soil	11
Rendering Establishments	12
Scarlet-fever	56
School-houses	15
Sewerage	1
Slaughtering Establishments	11
Small-pox	27
Superintendent of Health, Report of	85
Tenement-houses and Nuisances	7
Tramps	14
Urinals	10
Vaccination	13
Wet Cellars	5

CITY OF BOSTON.

City Document No. 68.

AUDITOR'S MONTHLY EXHIBIT.

General and Special Appropriations for 1877–78.

Office of the Auditor of Accounts,
City Hall, July 7, 1877.

To the Honorable City Council: —

Gentlemen, — The undersigned, in compliance with the third Section of the Ordinance on Finance, herewith presents an Exhibit of the General and Special Appropriations for the present financial year of 1877–78, as shown in the books in his office, July 1, 1877, including the July draft, — being three monthly payments of the financial year, — exhibiting the original appropriations, the balances brought forward from the year 1876–77, the amount expended, and the balance of each unexpended at that date.

Respectfully submitted,

ALFRED T. TURNER,
Auditor of Accounts.

APPROPRIATIONS.

Object of Appropriations.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Additional Supply of Water	[1]$1,352,571 98	$183,544 50	$1,169,027 48
Advertising	2,500 00	442 42	2,057 58
Armories	22,000 00	5,131 55	16,868 45
Assessors' Department	92,167 00	33,098 20	59,068 80
Auditor's Department	15,650 00	3,777 39	11,872 61
Back Bay Streets and Avenues	[2]3,084 61	61 17	3,023 44
Beach Street	[3]594 00	. . . .	594 00
Bells and Clocks	3,580 00	472 99	3,107 01
Board of Health	68,900 00	12,819 38	56,080 62
Boston Harbor	5,000 00	987 15	4,012 85
Branch Library, W. Roxbury Dist.	[4]10,000 00	35 81	9,964 19
Bridges	53,293 00	11,846 43	41,446 57
Broadway Extension	[5]80,680 21	. . . .	80,680 21
Burnt District	[6]352,800 20	889 28	351,910 92
Cedar Grove Cemetery: Add Revenue received, $3,904 60	[7]5,217 75	6,767 20	2,355 15
Chelsea Bridge	[8]141,022 46	971 54	140,050 92
Chestnut Hill Driveway	3,500 00	1,360 24	2,139 76
City Debt	672,700 00	. . . .	672,700 00
City Hospital	[9]127,000 00	33,373 55	93,626 45
City Registrar's Department	9,650 00	1,739 80	7,910 20
Cochituate Water Works: Revenue, $150,695 37; Running Expenses, $54,567 85; Interest, 40,880 00; Proportion paid under contract, 3,844 26	. . . .	99,292 11	51,403 26
Collector's Department	42,600 00	9,744 70	32,855 30
Common, etc.	65,100 00	42,363 94	22,736 06
Commonwealth Avenue, Fencing and Grading,	[10]11,555 46	3,256 67	8,298 79
Completion West Chester Park, etc.	150,000 00	3,839 68	146,160 32
Contingent Funds:			
Joint Committees	4,000 00	1,481 85	2,518 15
Mayor	3,000 00	121 30	2,878 70
Board of Aldermen	3,000 00	790 60	2,209 40
Common Council	3,000 00	788 52	2,211 48
County of Suffolk	365,000 00	77,778 72	287,221 28
Deeds, Real Est. Advertising, etc. Add Revenue received, $630 65	[11]9,176 60	2,202 00	7,605 25
East Boston Ferries	165,000 00	34,881 60	130,118 40
Eastern Avenue and Bridge	[12]13,569 79	. . . .	13,569 79
Engineer's Department	25,479 00	6,853 77	18,625 23
Carried forward	$3,882,392 06	$580,714 06	$3,456,908 62

[1] Brought from last year, $1,352,571 98
[2] Brought from last year, 3,084 61
[3] Brought from last year, 594 00
[4] Transferred from Reserved Fund, 10,000 00
[5] Brought from last year, 80,680 21
[6] Brought from last year, 352,800 20
[7] Brought from last year, $217 75
[8] Brought from last year, 26,022 46
[9] Brought from last year, 2,000 00
[10] Brought from last year, 5,555 46
[11] Brought from last year, 9,176 60
[12] Brought from last year, 13,569 79

OBJECT OF APPROPRIATIONS.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward . . .	$3,882,392 06	$580,714 06	$3,456,908 62
Engine House and Land, Fulton St.	[1]45,000 00	. . . .	45,000 00
English High and Latin School Buildings	. . . .	110 00	($110.00 provided for.)
Evergreen Cemetery: Add Revenue received, $30 00	[2]1,202 85	513 62	719 23
Fever Hospital, Gallop's Island .	2,500 00	1,005 89	1,494 11
Fire Alarm Telegraph . . .	[3]20,642 00	3,512 08	17,129 92
Fire Department	563,000 00	228,165 01	334,834 99
Francis Street School-house . .	[4]3,909 72	. . . .	3,909 72
Grammar School-house, Brighton District	[5]45,974 25	. . . .	45,974 25
Grammar School-house, Dorchester-Everett District	[6]19,194 97	7,179 66	12,015 31
Grammar School-house, Egleston Square	[7]10,397 13	. . . .	10,397 13
Grammar School-house, Washington Village	[8]80,775 00	3,123 57	77,651 43
Health Department . . .	365,000 00	87,196 63	277,803 37
Home for Poor, Deer Island . .	[9]147,500 00	. . . .	147,500 00
Improved Sewerage . . .	[10]20,256 04	2,750 15	17,505 89
Incidental Expenses: Add income of Foss and Babcock Funds, $409 72	87,000 00	21,155 38	66,254 34
Inspection of Buildings	14,000 00	3,774 72	10,225 28
Interest and Premium . . .	1,698,000 00	236,784 58	1,461,215 42
Lamps	490,000 00	102,747 43	387,252 57
Law Department	18,440,00	4,194 05	14,245 95
Liquor License Expenses: Add Revenue received, $99,089 00	[11]2,523 48	26,697 47	74,915 01
Markets	9,295 00	2,133 20	7,161 80
Memorial Monument, Boston Common	[12]52,500 00	10,800 00	41,700 00
Mount Hope Cemetery: Add Revenue received, $3,856 62	[13]16,526 61	10,182 68	10,200 55
Mt. Washington Avenue Bridge .	[14] 8,000 00	. . . .	8,000 00
Mystic Sewer	[15]203,755 68	101 90	203,653 78
Mystic Water Works: Revenue, $14,257 33; Running expenses, $27,281 26; Interest, 1,230 00; Proportions paid under contracts, 8,550 32	. . . .	37,061 58	($22,804.25 prov. for.)
Neponset Bridge	[16]19,000 00	. . . .	19,000 00
New Engine Houses . . .	[17]860 67	568 37	292 30
New Lunatic Hospital . . .	[18]100,628 21	. . . .	100,628 21
Northampton Street District . .	[19]20,532 27	1,339 78	19,192 49
Carried forward . . .	$7,948,805 94	$1,371,811 81	$6,872,781 67

[1] Brought from last year,	$45,000 00	[11] Brought from last year,	$2,523 48
[2] Brought from last year,	202 85	[12] Brought from last year,	52,500 00
[3] Brought from last year,	1,000 00	[13] Brought from last year,	1,826 61
[4] Brought from last year,	3,909 72	[14] Brought from last year,	8,000 00
[5] Brought from last year,	5,974 25	[15] Brought from last year,	203,755 68
[6] Brought from last year,	16,194 97	[16] Brought from last year,	19,000 00
[7] Brought from last year,	6,897 13	[17] Brought from last year,	860 67
[8] Brought from last year,	80,775 00	[18] Brought from last year,	100,628 21
[9] Brought from last year,	147,500 00	[19] Brought from last year,	532 27
[10] Brought from last year,	20,256 04	Transferred from Reserved Fund,	20,000 00

Object of Appropriations.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward, . . .	$7,948,805 94	$1,371,811 81	$6,872,781 67
Old Claims	2,000 00	301 37	1,698 63
Overseers of the Poor . . .	141,400 00	12,825 61	128,574 39
Park Department	[1]2,159 92	. . . .	2,159 92
Paving, etc.	850,000 00	186,891 20	663,108 80
Play grounds	[2]2,000 00	. . . .	2,000 00
Police	841,300 00	210,081 38	631,218 62
Primary School-house, City Point .	[3]15,000 00	. . . .	15,000 00
Primary School-house, Sherwin District	40,000 00	10 00	39,990 00
Printing and Stationery . . .	27,000 00	3,306 16	23,693 84
Prison Point Bridge . . .	[4]2,629 03	217 82	2,411 21
Public Baths	25,000 00	6,132 39	18,867 61
Public Buildings	83,850 00	17,704 94	66,145 06
Public Institutions, viz.:			
House of Industry . . .	184,950 00	38,483 76	146,466 24
House of Correction . . .	91,150 00	21,514 74	69,635 26
Lunatic Hospital . . .	59,720 00	11,176 39	48,543 61
Pauper Expenses . . .	80,600 00	14,156 19	66,443 81
Steamboat "J. Putnam Bradlee"	18,170 00	3,125 87	15,044 13
Office Expenses	7,350 00	671 24	6,678 76
Marcella Street Home . .	25,000 00	6,024 13	18,975 87
Almshouse, Austin Farm . .	18,000 00	3,128 44	14,871 56
Almshouse, Charlestown District	9,000 00	1,405 49	7,594 51
Addition to building, Rainsford Island	16,000 00	. . . .	16,000 00
New Piggery, Deer Island . .	8,500 00	. . . .	8,500 00
Public Lands	6,000 00	665 01	5,334 99
Public Library	[5]120,626 00	34,086 37	86,539 63
Quarantine Department . . .	14,400 00	3,494 59	10,905 41
Registration of Voters and Election Expenses	22,200 00	2,359 06	19,840 94
Reserved Fund	[6]268,000 00	. . . .	268,000 00
Salaries	31,950 00	7,900 00	24,050 00
Schools and School-houses, viz.:			
School Instructors . . .	1,115,520 00	391,233 95	724,286 05
School Expenses, School Com. .	245,000 00	55,585 27	189,414 73
Salaries Officers, School Com. .	51,000 00	19,237 22	31,762 78
School-houses, Public Buildings .	133,000 00	14,495 92	118,504 08
Sealer of Weights and Measures .	3,700 00	607 85	3,092 15
Sewers	150,000 00	23,898 75	126,101 25
Sinking Fund Commissioners .	800 00	200 00	600 00
Small-pox Hospital . . .	[7]29,243 64	9,000 00	20,243 64
Soldiers' Relief:	[8]153,131 98	12,835 00	140,296 98
Suffolk Street District . . .	[9]2,164 03	89 20	2,074 83
Surveyor's Department . . .	36,176 00	8,846 34	27,329 66
Swett Street	[10]56,513 78	3,765 26	52,748 52
Tax and other Fees: Revenue received, $5,059 60	. . . .	150 15	4,909 45
Carried forward . . .	$12,939,010 32	$2,497,418 87	$10,742,438 59

[1] Brought from last year, $2,159 92
[2] Transferred from the Reserved Fund, 2,000 00
[3] Brought from last year, 15,000 00
[4] Brought from last year, 2,629 03
[5] Brought from last year, 500 00
[6] Transferred to Branch Library West Roxbury District, $10,000 00
Northampton-st. Dist., 20,000 00
Play grounds, 2,000 00
[7] Brought from last year, 29,243 64
[8] Brought from last year, 153,131 98
[9] Brought from last year, 2,164 03
[10] Brought from last year, 56,513 78

OBJECT OF APPROPRIATIONS.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward . . .	$12,939,010 32	$2,497,418 87	$10,742,438 59
Treasurer's Department . .	21,700 00	5,452 44	16,247 56
Washington Street Extension .	[1]30,863 90	. . . .	30,863 90
Water Works, West Roxbury and Brighton Districts	[2]25,403 78	21,579 41	3,824 37
West Boston and other Bridges .	[3]8,000 00	1,264 14	6,735 86
Widening Shawmut Avenue . .	[4]3,669 53	. . . .	3,669 53
Widening Streets	125,000 00	9,856 54	115,143 46
Total Appropriations, $10,267,258 00		$2,535,571 40	$10,918,923 27
Balances from 1876–77, 2,886,389 53		Less prov. for,	22,914 25
	$13,153,647 53		
Revenue	277,932 89		$10,896,009 02
	$13,431,580 42		

[1] Brought from last year, $30,863 90
[2] Brought from last year, 25,403 78
[3] Brought from last year, $1,500 00
[4] Brought from last year 3,669 53

UNCOMPLETED PUBLIC BUILDINGS AND PUBLIC WORKS, MAY 1, 1877.

TOTAL APPROPRIATIONS AND EXPENDITURES FOR EACH.

The following table shows the total amount of appropriations made from time to time by the City Council, and the objects for which they were made, — the amount expended, and balance unexpended, including the July draft.

OBJECT OF APPROPRIATIONS.	Loan, Revenue, or from Transfers.	Expended.	Unexpended.
Additional Supply of Water (transfer, loans and premium on loans)	$4,462,886 80	$3,293,859 32	$1,169,027 48
Back Bay streets and avenues (loan and transfers)	462,000 00	458,976 56	3,023 44
Beach Street (loan and transfer)	253,969 96	253,375 96	594 00
Broadway Extension (loan)	1,000,000 00	919,319 79	80,680 21
Burnt District (loans)	6,671,176 65	6,319,265 73	351,910 92
Chelsea Bridge (appropriation)	158,000 00	17,949 08	140,050 92
Eastern Avenue and Bridge (loan)	200,000 00	186,430 21	13,569 79
Francis Street School-house (appropriation)	20,000 00	16,090 28	3,909 72
Grammar School-house, Brighton District (appro'tion)	46,000 00	25 75	45,974 25
Grammar School-house, Dorchester-Everett District (appropriation)	43,000 00	30,984 69	12,015 31
Grammar School-house, Egleston Square (appro'tion)	23,500 00	13,102 87	10,397 13
Grammar School-house, Washington Village (appro.)	115,000 00	37,348 57	77,651 43
Home for Poor, Deer Island (appropriation)	150,000 00	2,500 00	147,500 00
Memorial Monument, Boston Common (transfer)	75,000 00	33,300 00	41,700 00
Mystic Sewer (loan)	205,000 00	1,346 22	203,653 78
New Engine Houses (appropriation)	23,000 00	22,707 70	292 30
New Lunatic Hospital (loan and appropriation)	148,000 00	47,371 79	100,628 21
Northampton Street District (loan and transfers)	262,000 00	242,807 51	19,192 49
Suffolk Street District (loans and transfers)	2,428,248 96	2,426,174 13	2,074 83
Swett Street (loan)	376,000 00	323,251 48	52,748 52
Washington Street Extension (loans)	1,670,000 00	1,639,136 10	30,863 90
Water Works, West Roxbury and Brighton Districts (loans and premium on loans)	480,570 00	476,745 63	3,824 37
Widening Shawmut Avenue (transfer)	77,000 00	73,330 47	3,669 53
	$19,350,352 37	$16,835,399 84	$2,514,952 53

CITY OF BOSTON.

City Document No. 69.

ORDINANCE RELATING TO THE OCCUPATION OF STREETS FOR BUILDING PURPOSES.

In Board of Aldermen, July 9, 1877.

Laid on the table and ordered to be printed.

Attest: S. F. McCLEARY,
City Clerk.

In Board of Aldermen, July 9, 1877.

The Joint Standing Committee on Ordinances, who were requested to report an ordinance providing for the appointment of a suitable person to be attached to the Department for the Survey and Inspection of Buildings, who shall have charge of permits for occupying streets for building purposes, beg leave to submit the accompanying ordinance, and respectfully recommend the passage of the same.

For the committee,

C. H. B. BRECK,
Chairman.

AN ORDINANCE FOR THE OCCUPANCY OF STREETS FOR BUILDING PURPOSES.

Be it ordained by the Aldermen and Common Council of the City of Boston, in City Council assembled, as follows: —

Section 1. Every person wishing to occupy or use any portion of any of the streets for the erection or repair of any building upon land abutting thereon, shall make application therefor to the Inspector of Buildings, who, subject to the direction of the Board of Aldermen, shall have power and authority to grant permits for the occupation or use, for building purposes, of such part of any street, and for such length of time, and under such limitations and restrictions,

as may be required by any ordinance, or by the public convenience; and all such permits may be revoked by the Inspector of Buildings at any time when the holders of them fail to comply with any rule or regulation under which they are granted, or when, in the opinion of the Inspector of Buildings, the public good requires such revocation. And the part or portion so allotted, if any, and no other part of said street, shall be used for laying all the materials for any such building or repairing, and for receiving the rubbish arising therefrom. And all the rubbish arising therefrom or thereby shall be carried away by the person or persons so building or repairing, at such convenient time as the Board of Aldermen or Inspector of Buildings may direct; and in case of neglect or refusal so to do, it shall be removed by the Superintendent of Streets, the Chief of Police, or the Deputy Chief of Police, at the expense of such person or persons.

Sect. 2. In all cases the space so allotted shall be enclosed with a sufficient fence, which shall be continued during the whole time such occupation exists. And a lighted lantern or lanterns, or some other proper and sufficient lights, shall be fixed to some part or parts of such fence, or in some other proper manner. And said lights or lanterns shall be so kept lighted from the beginning of twilight every evening, through the whole of every night, during said occupation.

Sect. 3. Any person licensed or permitted as aforesaid to occupy any part of any street, while erecting or repairing any building, shall provide a safe and convenient passage around or over the same for public travel, and shall be responsible for any injury sustained in consequence of any neglect so to do.

Sect. 4. Any person violating any of the provisions of this ordinance shall be liable to a penalty of not less than two dollars nor more than fifty dollars for each offence, and to a like penalty for each day's continuance thereof.

Sect. 5. In the month of July, 1877, and annually thereafter in the month of February, there shall be appointed by the Inspector of Buildings, subject to the confirmation of the Board of Aldermen, a suitable person, who shall have charge of the permits granted for the use or occupancy of any part or portion of any street for building purposes, who shall hold his office for one year from the first Monday in April of the year in which he is appointed, and until his successor is chosen and qualified, or he is removed. The duty of such officer shall be to see that the laws, ordinances, orders, and regulations, now or at any time in force respecting the use or occupancy of any street or part thereof, for

the purpose of erecting, altering, or repairing or removing any building, are observed and enforced, and he shall be under the general direction of the Inspector of Buildings.

Sect. 6. Said officer may be removed by the Inspector of Buildings, with the consent or approval of the Board of Aldermen, for malfeasance, incapacity, or neglect of duty, and a vacancy may be filled at any time for the unexpired term. Said officer shall receive such compensation for his services as the City Council may from time to time determine.

CITY OF BOSTON.

City Document No. 70.

REPORT ON IMPROVED SYSTEM OF SEWERAGE.

In Common Council, July 12, 1877.

The Joint Special Committee which was appointed to have charge of all matters relating to an improved system of sewerage, respectfully report that the work of making the preliminary surveys is completed, and that the City Engineer has presented his report, a copy of which is herewith submitted.

As some time has elapsed since the subject of improved sewerage has been directly before the City Council, a brief recapitulation of the proceedings which led to this report may be of interest.

By orders dated February 23, and March 1, 1875, the Mayor was authorized to appoint a commission, consisting of two civil engineers of experience and one competent person skilled in the subject of sanitary science, to report upon the present sewerage of the city; the discharge of sewers into Charles river, Stony brook, South bay, or Dorchester bay; the necessity of any high-water basin on the site of the present full basin; the expediency of relieving the sewers at the South End by pumping; and to present a plan for the outlets and main lines of sewers for the future wants of the city; and to report, if it is expedient, in connection with the proposed works, to provide for any water-basin or marginal drive-ways, as ornamental and sanitary features of the city, together with an approximate estimate of the expense of any plan, or plans, for a system of sewerage submitted by them.

The Mayor appointed a commission, consisting of Messrs. E. S. Chesborough, C. E., Moses Lane, C. E , and Charles F. Folsom, M. D., who, after an exhaustive study of the

subject, submitted a report (City Document No. 3, 1876), which was referred to a joint special committee, consisting of three members of the Board of Aldermen and five members of the Common Council. This committee reported June 12, 1876 (City Document No. 66, 1876), recommending that the plan of the commissioners be adopted, and that an appropriation be made to cover the expense of the preliminary surveys. An appropriation was made and the work of making the necessary surveys was immediately commenced. It was discovered that legislative authority would be needed to authorize the construction of the system proposed, and the Legislature, at its session of 1876, passed an act empowering the City of Boston to construct the necessary works.

At the beginning of the present year the undersigned were appointed to take charge of the work of making the preliminary examinations for an improved system of sewerage, and it has been performed under their direction until the present time. The results are clearly set forth in the reports of the City Engineer and the principal assistant in charge, which are hereto appended, together with a report from Professor N. S. Shaler, who was consulted with regard to the geological questions which arose during the progress of the survey.

Your committee believe that it is unnecessary to present any argument to prove the necessity of adopting a comprehensive system of sewerage for this city. The ground has been fully covered by former reports upon the subject. In such matters great reliance must be placed upon the opinions of persons who have made sanitary science a study; and, if the mass of testimony which has been presented from time to time be reviewed, it will be seen that the evils arising from defective sewerage are descernible in this city to an alarming extent.

While it is not assumed that an improvement in the system of sewerage will secure to us complete immunity from disease, it is believed that it will remove a powerful agency for evil. Aside from questions of health, it is well known that great discomfort is occasioned to the residents of many parts of the city, who are compelled to inhale the odors occasioned by the present method of discharging our sewage. It is believed that the necessity of the improvement will be admitted, whatever differences of opinion there may be as to the proper method of relief.

The plan for an improved system of sewerage which is now presented has the endorsement of the best engineering talent in the country. It is the result of a careful study of the

different systems of sewerage now in practical operation, and an application of the best features of such systems to meet the present and future wants of Boston. It is unnecessary for your committee to attempt to explain the details of the proposed plan; for that they refer to the reports and plans of the engineers. It will be seen that the plan agrees in all its essential features with the one originally recommended by the commissioners.

Your committee have made a careful study of the scheme, and are convinced that it presents the only practicable method of effectually removing the evils which are inseparable from our present system. It appears to be the only feasible method of securing the conditions demanded of a complete system of sewerage, viz.: the immediate and uninterrupted removal of sewage from the vicinity of our dwellings to a point from whence it will not return.

Your committee would respectfully recommend the passage of the following orders.

CHOATE BURNHAM,
CHARLES W. WILDER,
LUCIUS SLADE,
EUGENE H. SAMPSON,
J. HOMER PIERCE,
MARTIN L. HAM,
GEORGE L. THORNDIKE.

The undersigned respectfully dissents from the recommendations of the majority of the Committee on Improved Sewerage.

WARREN K. BLODGETT.

Ordered, That the City Treasurer be and he hereby is authorized to borrow, under the direction of the Committee on Finance, the sum of three million seven hundred and twelve thousand seven hundred dollars; the same to constitute a special appropriation for the construction of an improved system of sewerage.

Ordered, That the Joint Special Committee on Improved Sewerage be authorized to contract on behalf of the City of Boston for the construction of an improved system of sewerage, having its pumping-station located at Old Harbor Point and its outlet at Moon Head, with all the reservoirs, pumping-works, and other appliances essential to the proper operation of said system, substantially in accordance with plans made

by Joseph P. Davis, City Engineer, and as authorized by an Act of the Legislature entitled "An Act to empower the City of Boston to lay and maintain a main sewer discharging at Moon Head in Boston harbor, and for other purposes," being Chapter 136 of the Acts of the year 1876; the expense thereof to be charged to the appropriation for Improved Sewerage.

APPENDIX.

Office of the City Engineer, City Hall,
Boston, July 9, 1877.

Alderman Choate Burnham, *Chairman Joint Special Committee on Improved Sewerage:* —

Sir, — The Joint Special Committee of last year directed me to take charge of the surveys and investigations authorized by the following order: —

"*Ordered*, That the Auditor of Accounts be, and he hereby is, authorized to transfer from the Reserved Fund the sum of forty thousand dollars, to constitute a special appropriation for the purpose of making surveys and plans and of procuring estimates for an improved system of sewerage for the City of Boston, on a line from Tremont street to Moon Island, and also on a line from said street to deep water east of Castle Island; and that said appropriation be expended under the supervision and direction of the Joint Special Committee on Improved Sewerage.

"[*Approved July* 17, 1876.]"

The investigations have now been carried so far that I am in position to recommend a definite scheme, and to give a preliminary estimate of its cost; and, understanding that it is the wish of your committee that a report should be made at once, I respectfully submit the following: —

A few days after the above order was approved, Mr. Eliot C. Clarke was appointed principal assistant, to take charge of the surveys; and his report, which accompanies this, will show what work has been done in the office and in the field. There remains for me, therefore, little else than to state what conclusions have been arrived at, and to give the estimates of cost of the various schemes that have been considered.

All the schemes are alike in their main features, and correspond with that proposed and recommended by the Commission appointed in 1875 to report upon the present sewerage of the city, and to present a plan for its improvement.

These features are: a system of intercepting sewers along the margin of the city, to receive the flow of the existing sewers; a main sewer, into which the former empty, and which, crossing the city, leads to a pumping-station; pumping machinery to raise the sewage matter some thirty feet; an outfall sewer leading from the pumps to a reservoir situated at some favorable point for dis-

charge; and a reservoir from which the sewage, accumulated during the latter part of ebb and the whole of flood tide, is to be let out into the harbor during the first two or three hours of the ebb.

In all the schemes it is assumed that at some future day a system of *high-level* intercepting sewers will be added, which will conduct to the outfall all sewage that can be delivered at the reservoir without pumping.

The Commissioners (Mr. E. S. Chesbrough, City Engineer of Chicago; Mr. Moses Lane, City Engineer of Milwaukee; and Dr. C. F. Folsom, Secretary of Massachusetts State Board of Health) state in their report (City Document No. 3, 1876) what the evils are in the existing sewerage system that require remedy, and give the reasons why a plan of the above description is recommended. While it will be needless to go over the whole ground here, it may be well to call attention to one or two of the more striking points.

In the existing system the sewage is discharged through some seventy different outlets along the shore lines of the city, and a number of these outlets may be said to be in the very heart of the city, — such as those which empty into the Roxbury Canal, South Bay, and Fort Point Channel.

As the borders of the sewered portions of Boston consist largely of broad strips of made land, filled to level planes only six or eight feet above mean high tide, the sewers are necessarily built with slight grades, and are so situated as to be tide-locked a large portion of the time. They discharge during the latter part of the ebb and the first part of the flood-tides, so that the sewage, instead of being swept out into the harbor and there diffused, is carried inland, and such portion as will deposit in still water is thrown down at the turn of the tide upon the broad areas of flats that exist within and around the city. This intermittent discharge produces other serious evils. During the time the sewage is accumulating in the sewers there is very little current in them, and, in consequence, deposits are formed which are not readily removed, and, when putrefaction begins, are the source of dangerous gases. Again, as the sewage accumulates and rises in the sewers the gases are compressed, and, since adequate ventilation is not provided, are liable to be forced through the house-drains into the houses.

The more important objects to be attained by an improved system of sewerage are, then, an uninterrupted removal of all sewage matter from the vicinity of inhabited districts, and a discharge of this matter at such a point and under such conditions that it shall not be brought back to be thrown down on our shores.

The order of the City Council refers to two points of outlet only; but after its passage other points were urged as possessing merit, and the committee thought it would be best to give them some attention, since so doing did not seem to be at variance with the spirit of the order.

Four points of discharge have therefore been considered, viz.: —

Spectacle Island.
Thompson's Island.
Castle Island.
Moon Island.

From these four points experiments with floats were made, to determine the direction and the force of the tidal currents, and to furnish a means of judging if the suspended matter of the sewage would be deposited where it would injure the ship channels or cause a nuisance.

SPECTACLE ISLAND.

The experiments show a fair current off Spectacle Island, setting out through Broad-sound channel and joining with the stronger current which passes between Castle and Governor's islands. Suspended matter, however, discharged at Spectacle Island, would be kept on the southerly edge of the channel current and would be liable (as was shown by the course taken by some of the floats) to be directed into the still water of the main ship channel between Lovell's and Gallop's Islands, where it would meet the incoming tide and be deposited.

The topography of Spectacle Island is such as to render the building of a reservoir very costly, and, although a sufficient number of borings have not been made to decide the question beyond dispute, it is probable that the island cannot be reached with an outfall sewer except at an unjustifiable expense. As a point for discharge it is evidently inferior either to Castle or Moon Island, and therefore is thrown out of further consideration.

THOMPSON'S ISLAND.

The head of Thompson's Island lies about one mile to the southwest of Spectacle, and the strongest currents passing the former also pass the latter. A float put into the current at the beginning of ebb tide, well out from the northerly shore of Thompson's, will require fully two hours to reach Spectacle, and will usually meet the incoming tide at some point near the heads of either Long or Lovell's Islands; floats put in nearer the shore will pass to the south and enter the sluggish water between Spectacle and Long islands.

The experiments show conclusively that Thompson's Island does not offer a favorable point for discharge, and hence it need not be further considered.

CASTLE ISLAND.

Castle Island is owned by the United States Government, and is the site of Fort Independence,— a fort of considerable importance on the inner lines of defence of Boston harbor.

Whether or not the city would be allowed to construct sewerage works there, or make it the point of discharge, can only be

definitely settled by petition to Congress, or application to the Secretary of War; but it seems hardly possible that any use of the island, which would in any way decrease its value as a defensive position, would be permitted; and this view has been confirmed by the best information I have been able to obtain. If it can be satisfactorily demonstrated that the discharge of sewage there would not make a nuisance, nor injure the island as a place for quartering soldiers, it is possible that permission would be granted to make it the *terminus of the outlet sewer;* but it seems almost certain that the building of a reservoir on the island itself, or on the flats surrounding it, would, to some extent, weaken its strength as a point of defence, and therefore would not be permitted.

Assuming that the reservoir cannot be built in the vicinity of the island, I have devised a scheme in which it is located on the main land at South Boston Point, and the outlet sewer is carried from there to and across the island and terminates at a point some six or seven hundred feet to the northwest of the fort.

A scheme, in which the reservoir was located on the flats to the north of the point, with a platform and pile foundation, was also considered and estimated upon, but is not here described, since such construction cannot be recommended.

The current that sets by the island is one of the strongest in the harbor, and would usually take any suspended matter, discharged into it during the first half of ebb tide, a considerable distance into Broad Sound, passing, on its way, through Broad Channel. The result of the float experiments in this current is thus described by Mr. Frank W. Ring, the assistant who had charge of the hydrographic surveys: "Floats were sent from here (Castle Island), near the wharf on the northeastern side of the island, and in vicinity of buoy No. 7. Starting at high water, the acquired distance on one tide is about 6.3 miles.

"Of the six trips from this point the average velocity per hour was 0.81 miles. The usual direction is out Broad Channel into the sound, and, upon return, the flood tide takes the floats into the bay formed by Deer Island and the reef which makes out to the southward of it; from here the following ebb takes it into the sound, to be carried to sea by the Graves, or toward Nahant.

"There is danger of material discharged at this point being carried to the main ship channel between Lovell's and Gallop's islands, where little current exists at any stage of the tide. One float out of six trips indicated this, as did also one trip from Thompson's Island.

"I would also beg leave to call your attention to the formation of the channel at this place; it being narrow and deep opposite the island, and beyond expanding and shoaler. The velocity has a tendency to decrease with the expansion, whereas for a favorable outlet the channel should concentrate its forces, increasing its velocity."

Sewage matter once carried into Broad sound would, during the turn of the tide, be held for a while in still water, allowing the heavier particles not already thrown down in the channel to deposit, and the remainder would be so diffused as to be imper-

ceptible, hence its return to the west of Deer Island could hardly produce any ill effect.

On the whole, considering simply the effect upon the harbor, Castle Island is a rather favorable point for discharge; but there are two objections of some weight to its use: one is that the sewage would there be discharged into the main ship channel through which all the vessels entering the inner harbor must pass, and the other, that, under some conditions of the current and wind, there is danger of a deposit in the important channel between Lovell's and Gallop's islands.

In reference to deposits in the channels a few words will be in place here.

The tidal currents produce a scouring effect upon the bottom of the channels, — in one direction during ebb-tide, and in the other during flood. Usually the strongest scour in the more important channels is during the ebb; hence the tendency is to gradually move all particles that can be acted upon towards the sea. Such is the effect produced in the channels opposite Castle and Moon islands. The resultant of the scour in the channel north of George's Island is only slightly seaward. In the channel between Lovell's and Gallop's islands the scouring forces are very feeble, as very little current is produced there by any movement of the tides; the resultant of these forces is inward.

The suspended matter that will be discharged in the sewage and will settle to the bottom in the channels must necessarily be of a nature to yield readily to very slight scouring forces, since the heavier particles that enter the sewers must be deposited before they reach the pumps.

While it cannot be positively asserted that no shoaling of the channels will take place in a long series of years, yet reasoning from the known facts in the case, and having regard to the experience of London, the conclusion is reached that shoaling to a serious extent will not occur.

In the Castle Island scheme the main sewer starts on Camden street, at a point near its intersection with Huntington avenue, and, following Camden street, passes under the Boston & Providence railroad to Washington street; here it turns into Northampton street and follows it to Swett street; thence passing through Swett, Preble (widened), Lowland, Ninth and N streets, it extends to the pumping-station at the corner of P and Sixth streets. The reservoir is located on a plot of ground bounded by P street, Broadway, R street, and Fifth street.

The outlet sewers are carried from here to Castle Island on a pile foundation (the whole covered with an earth embankment heavily paved and rip-rapped), and terminate in about six feet of water at low tide near the northwest shore of the island.

The estimated cost of the Castle Island scheme is as follows: —

Intercepting sewers	$623,000 00
Main sewer	648,000 00
Pumping-station, filth-hoist, force-mains, etc. .	390,000 00
Reservoir and connections	431,000 00

Wharf, sea wall, etc.	$25,000 00
Outlet sewer	410,000 00
Pier, box sewers, and connections . . .	122,000 00
Damage for displacement of tide-water . .	41,000 00
Extra for relaying existing sewers, etc. . .	100,000 00
	$2,790,000 00
Add 10 per cent. for superintendence and contingencies	279,000 00
	$3,069,000 00
Land damages	360,000 00
	$3,429,000 00

The cost of widening Preble street is not included in the estimate, as that is an improvement already contemplated and properly chargeable to another account.

The value of the real estate to be taken for the reservoir is an uncertain element. It has been set down at the valuation of the assessors for 1875.

The more important advantages of this scheme are its relative cheapness, its facility of construction in comparison with other schemes, avoiding as it does the driving of a tunnel or the sinking of a siphon; and the circumstance that it provides at once for the sewage discharged on the south side of South Boston, without requiring a special intercepting sewer for that purpose.

The chief objections to it are, the discharge of the sewage into the main ship channel, and in the vicinity of a thickly populated district, the effect that will be produced upon the value of real estate in the neighborhood of the reservoir and pumping-station, and the improbability that the United States Government will permit Castle Island to be used as a point of discharge.

MOON ISLAND.

The float experiments show a good current setting by the head of Moon Island and passing out to the Sound through Black Rock Channel.

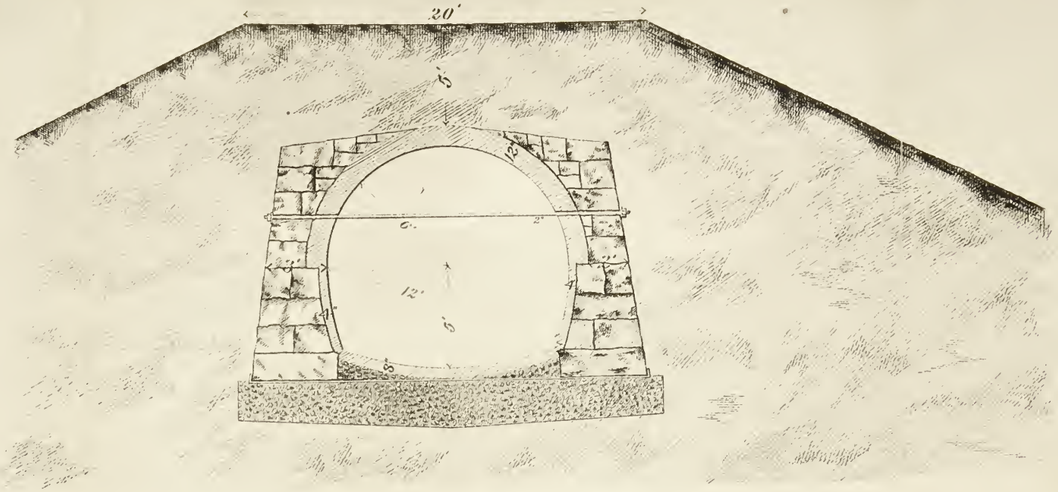
The pole floats (which were usually about fourteen feet long and were used to obtain the mean velocity of the current) passed to the north, and the surface floats to the south, of Rainsford Island.

The northerly channel is the deeper one, and the one the strongest currents follow.

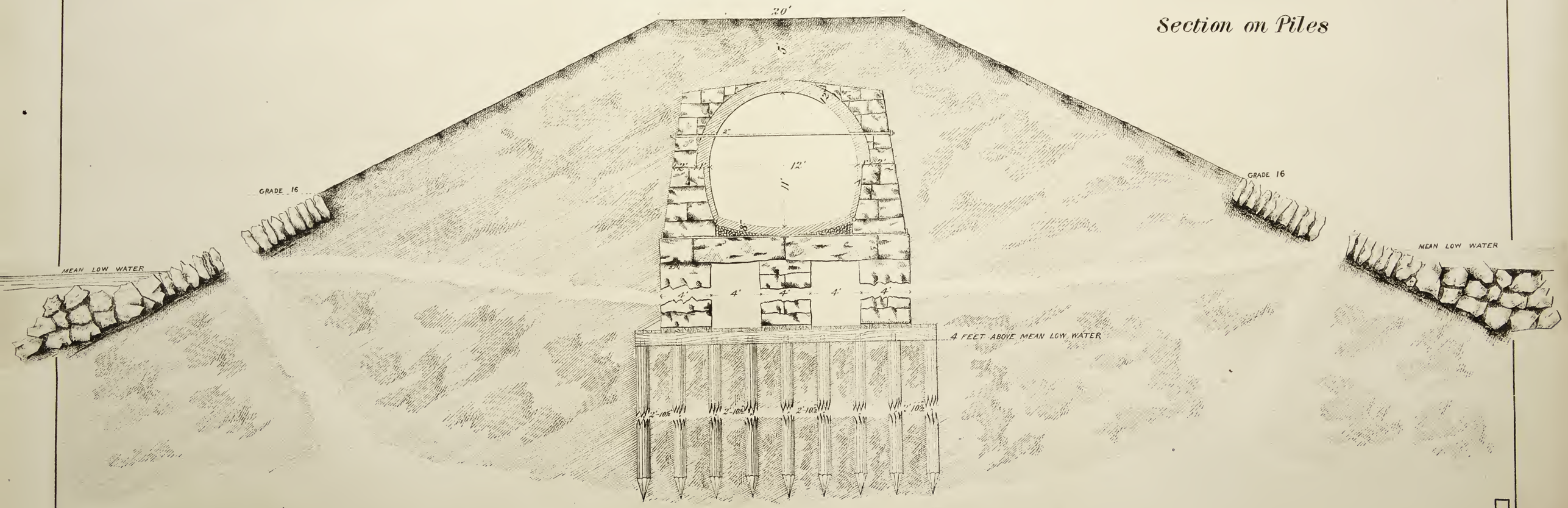
It would seem that for the first two or three hours of ebb tide, the waters of Dorchester Bay discharge chiefly through the opening between Thompson's Island and Squantum Head, thus producing a strong current close in land on the north shore of Moon Island, at just the time it is proposed to discharge the sewage. This current, passing around Moon Head, meets another from Quincy Bay, and the

CITY OF BOSTON
IMPROVED SEWERAGE
Proposed Outfall Sewer
1877

SCALE OF FEET
0 5 10



Section in Embankment



Section on Piles

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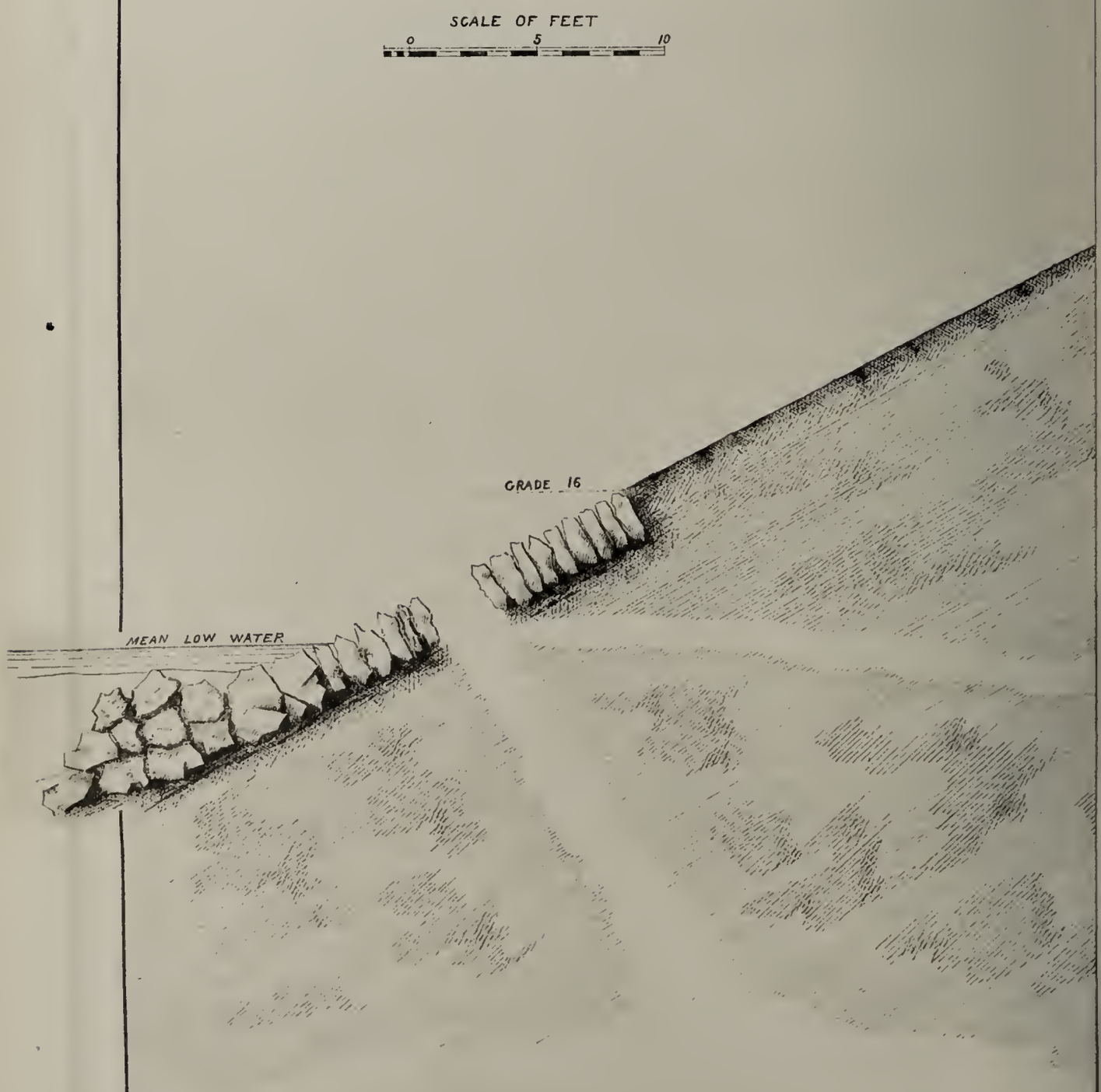
BOSTON

CITY OF BOSTON

IMPROVED SEWERAGE

Proposed Outfall Sewer

1877



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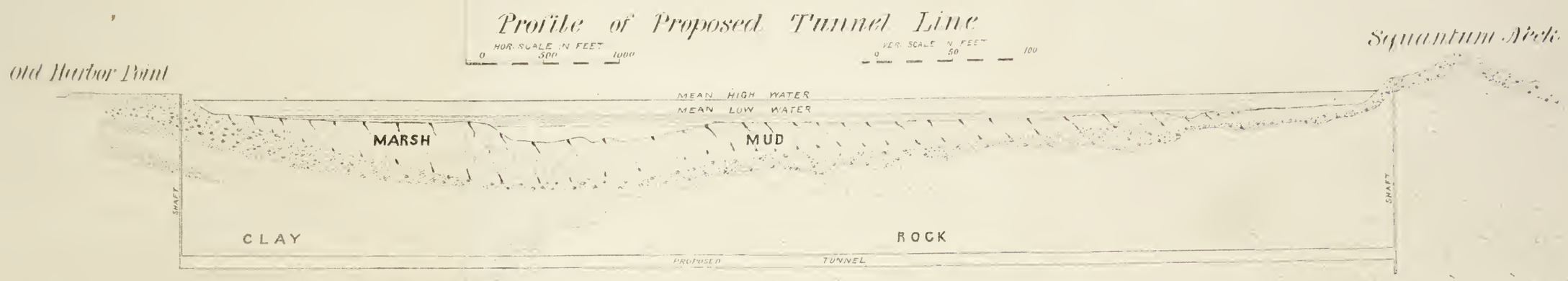
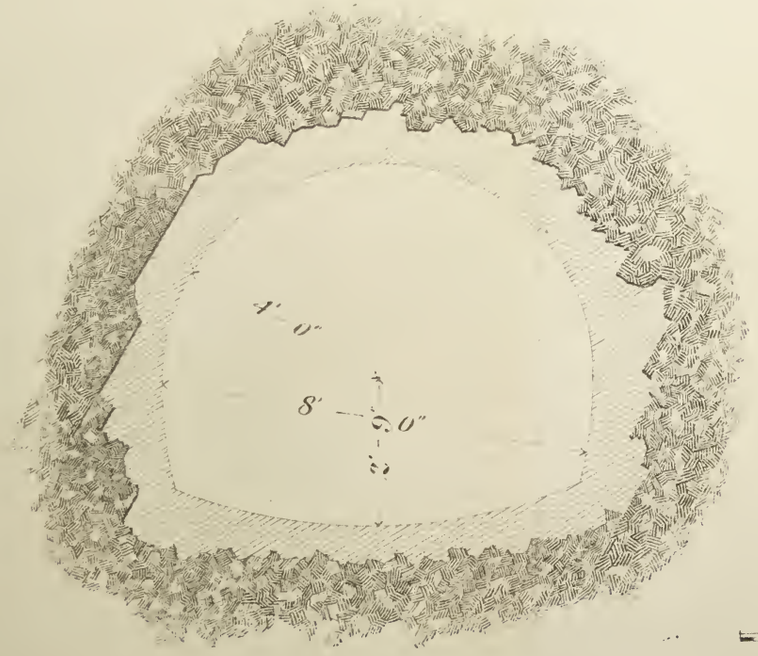


CITY OF BOSTON
IMPROVED SEWERAGE
PROPOSED TUNNEL
1877

Section in Rock



Section in Clay

Scale of Feet
0 1 2 3 4 5

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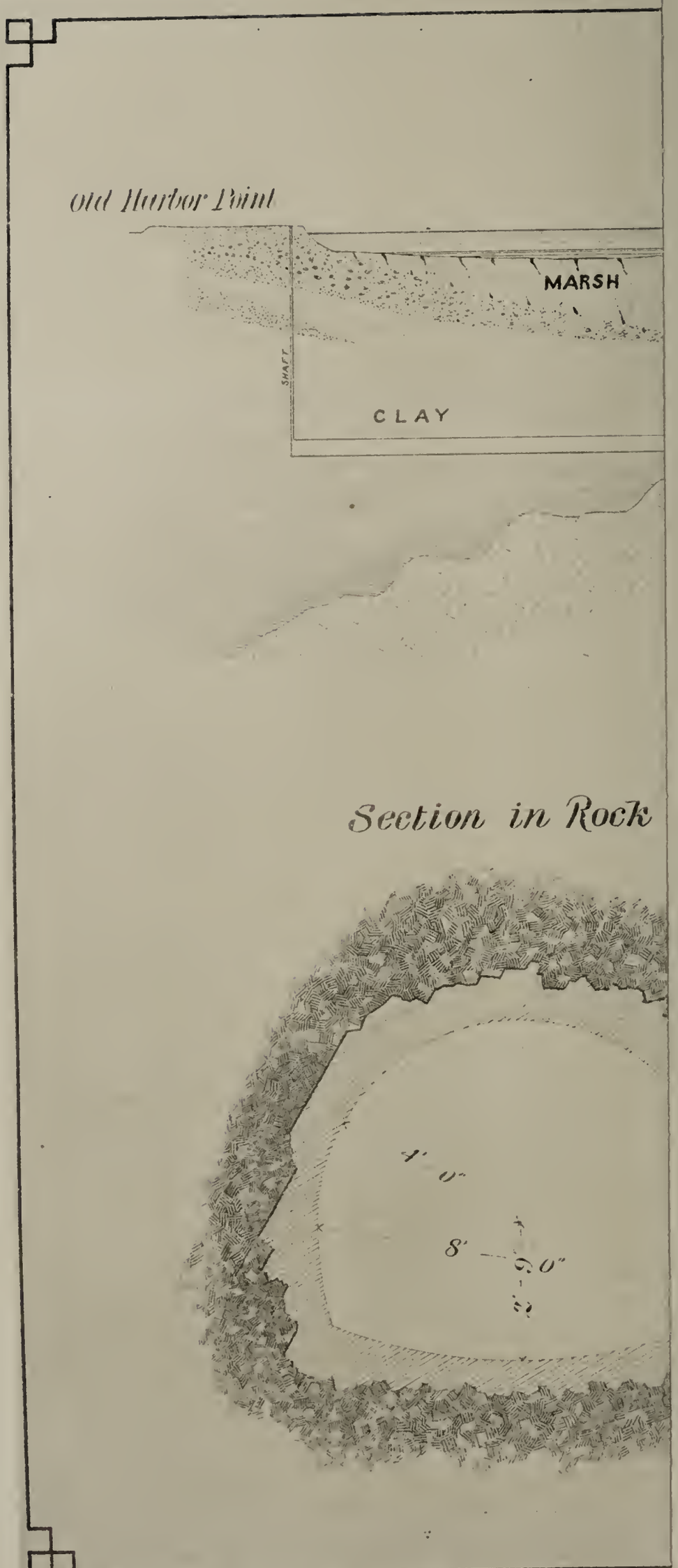

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two uniting pass out through Black Rock Channel, as before described. This union of the two currents is a very favorable condition, since the inner edge of the more northerly one becomes the thread of the combined currents; and, therefore, any matter discharged off the north point of the island will follow the deepest part of the channel and meet with the highest velocities; at least, whatever the cause, floats which were started comparatively near the shore at the point where it is proposed to discharge the sewage followed the thread of the current after leaving Moon Head.

A large number of experiments were made at this place, and for a detailed statement of the conclusions drawn from them I would refer you to Mr. Clarke's report. It will be sufficient to remark here that they clearly demonstrate that Moon Island is a favorable point for discharge.

Two plans, with this island for their outlet, have been studied; one known as the Old Harbor Point scheme, the other as the Commercial Point scheme. They differ chiefly in the location of the pumping-stations and of portions of the main and outfall sewers, these differences in location causing, however, a difference in some of the details, more particularly in the method of crossing the navigable waters lying between Boston and Quincy.

The main sewer in both schemes begins on Camden street near Huntington avenue, and follows Camden and Northampton streets to Albany, from whence it will take one of two courses, to be determined hereafter, one through Swett street and the proposed East Chester Park extension, to a point about 700 feet east of the New York & New England Railroad; thence through private property to the corner of Boston and Mt. Vernon streets; the other through Hampden street, Norfolk avenue, Clapp street, and private property to the same point; thence it follows Mt. Vernon street to a point about 600 feet beyond Dorchester avenue, there turning to the right and running to a point near Crescent avenue and the Old Colony railroad. At this place the lines in the two schemes separate. In the Old Harbor Point scheme the sewer, passing under the Old Colony railroad, traverses the long stretch of marsh land known as Cow Pasture, to Old Harbor Point, where is located the pumping-station.

A good foundation in clay is found for the sewer and pumping machinery at a convenient depth under the cow-pasture marsh, and no piling will be required.

The outfall sewer leaves the point in a tunnel and passes under the navigable waters of Dorchester Bay, a distance of 7,920 feet, to Squantum Head. Here it rises to the surface, crosses Squantum Neck, and passes over the body of water between the neck and Moon Island, to the reservoir on the island. A portion of the distance after leaving the neck, where there is mud bottom, it is carried on a pile foundation, the remainder of the way on an embankment. For the whole of this distance beyond the neck it is to be covered with a heavy embankment, heavily paved and rip-rapped where necessary.

The reservoirs will discharge through capacious outlet sewers, carried well out into the tidal current.

The estimated cost of the Old Harbor Point scheme is as follows: —

Intercepting sewers	$706,000 00
Main sewer	565,000 00
Pumping-station, filth-hoist, and force-mains	390,000 00
Sea-walls, filling, shaft chamber, flushing tank, etc.	155,000 00
Outfall sewer, including tunnel	848,000 00
Reservoir and connections	431,000 00
Outlet sewer	28,000 00
Pier, box sewers, and connections	64,000 00
Dwellings for reservoir men, and other buildings	20,000 00
Extra, for relaying existing sewers, etc.	100,000 00
	$3,307,000 00
Add 10 per cent. for superintendence and contingencies	330,700 00
	$3,637,700 00
Land damages	75,000 00
	$3,712,700 00

This estimate does not include the cost of land along East Chester park extension, but does include the cost of filling 675 feet in length of that street to the full width and grade.

The more important advantages of this scheme are: —

First. A favorable point for the location of a reservoir and the discharge of sewage.

Moon Island is remote from any considerable population, present or prospective; therefore, neither the presence of the reservoir nor the discharge of sewage there can have any effect upon the value of real estate.

The sewage will enter favorable currents, which follow channels entirely outside the inner harbor.

Second. The location of the pumping-station is also remote from any lands that would be liable to be depreciated by its presence, and is such that ample room can be had at moderate cost.

Third. The lines which the main sewer follows are such as to occasion comparatively little inconvenience during construction. After leaving Albany street, if East Chester park extension is followed, but one important line of travel will be interfered with, namely, Dorchester avenue.

The chief objection to it is the siphon in tunnel under Dorchester Bay. This feature is objectionable on account of difficulty of construction, and of the special appliances to keep it from silting up. A great deal of thought has been given to the latter point, and various methods for preventing deposit, and for flushing-out deposits, when they do occur, have been considered. The method

finally adopted for purposes of the estimate is a large, covered flushing-tank at the west shaft, into which the sewage will be pumped, and afterwards let through the siphon with a velocity sufficient to prevent deposit, or to remove any that may exist. At the east end a sump is provided, into which heavy matter, if any should find entrance to the tunnel, will be swept, thence to be dredged up through the east shaft. European experience in the use of siphons for sewerage purposes may show that so much in the way of precaution is unnecessary; if so the plans can be modified.

In the Commercial Point scheme, the main sewer follows the same line as in the scheme just considered, to a point near Crescent avenue and the Old Colony Railroad; thence turning to a southwesterly course it follows the lowlands of the valley through which the Old Colony Railroad runs, crossing, just before reaching Commercial Point, about 1,600 feet of tide-water; it then passes under the railroad at Commercial street, and follows that street, or the shore parallel to it, to Union street; thence passing down Union street, it terminates at the pumping-station on Commercial Point.

From the pumping-station the outfall sewer is carried across Neponset river to Squantum; (either in the form of an elevated wrought-iron tube, supported on stone piers, with a short siphon to admit of the passage of vessels, or a submerged siphon laid the whole width of the river in the deep mud which forms the bottom at this place) thence, following Squantum Beach, and crossing Seal Bay, it reaches the line already described in the Old Harbor scheme, at a point near the east shaft of the tunnel. Beyond this point the two schemes are identical. Along Squantum Beach the sewer is carried on embankments; and across Seal Bay it is carried on piles, and covered with an embankment, protected by paving and rip-rap.

The estimated cost of the Commercial Point scheme is as follows: —

Intercepting sewers	$706,000 00
Main sewer	834,000 00
Pumping-station and filth-hoist	390,000 00
Bridge and siphon	200,000 00
Outfall sewer	1,020,000 00
Reservoir and connections	431,000 00
Outlet sewer	28,000 00
Pier, box-sewers, and connections	64,000 00
Dwellings for reservoir men, and other buildings	20,000 00
Extra for relaying or raising portions of existing sewers	100,000 00
	$3,793,000 00
Add 10 per cent. for superintendence and contingencies	379,300 00
	$4,172,300 00
Land damages	200,000 00
	$4,372,300 00

If a siphon be substituted for the bridge, the total of the estimate would be $4,160,000.

This scheme possesses the more important advantages of the Old Harbor Point scheme, and, in addition, it avoids a tunnel and reduces the siphon to a moderate length. While this is an advantage of considerable importance, it is not worth the difference in cost.

The location of the main sewer between Savin Hill and Commercial Point is a very unfavorable one, both for the building of the sewer and its maintenance.

The grade of the sewer along this stretch is from eleven to thirteen feet below low-tide, and since much the greater portion of it would be either in tide-water or along its edge the difficulties to be met in construction would necessarily be of a serious character.

In Conclusion.

The objections already enumerated to the Castle Island scheme are, in my opinion, of a kind to preclude its adoption.

The difficulties to be met in the construction of the Commercial Point scheme taken in connection with the excess of cost and other matters of less importance, renders it inferior to the Old Harbor Point scheme; I would therefore recommend this latter as the best of the three, all things considered.

In Mr. Clarke's report will be found a description of the intercepting sewers and their location, with a statement of the areas drained by each and the population provided for; the data from which the sizes of the various sewers have been calculated, a description of the main and outfall sewers, also of the various sites that have been considered for pumping-stations and reservoirs, and much other information of interest in this connection.

I desire to acknowledge my indebtedness to him and his assistants for the thorough and careful manner in which they have performed the work committed to them.

Respectfully,

JOS. P. DAVIS,

City Engineer.

REPORT OF THE PRINCIPAL ASSISTANT ENGINEER IN CHARGE OF IMPROVED SEWERAGE SURVEY.

BOSTON, June 30, 1877.

MR. JOSEPH P. DAVIS, *City Engineer:* —

DEAR SIR, — I was appointed Principal Assistant Engineer in charge of Improved Sewerage Survey, on July 21, 1876. I herewith respectfully report the progress of that survey to date, with methods used and results obtained.

Although the order of July 17, in obedience to which this work was carried on, limited the survey to "A line between Tremont street and Moon Island, and also a line from said street to deep water east of Castle Island," yet, by a liberal interpretation of the order, it was assumed that any information was desired which bore upon an intercepting system of sewerage, on the general plan recommended by the commission appointed the previous year.

At the outset, several distinct, though related, subjects for investigation suggested themselves: —

First. Points of discharge; the tidal currents at such points, and their probable effect upon a body of sewage put into them.

Second. Location of the main sewer from its outlet to the city, and of the reservoir and pumping-station.

Third. Lines of the secondary intercepting sewers in the city.

Fourth. Forms and sizes of the main and secondary sewers, reservoirs, outlets, etc., and methods of construction.

Fifth. Estimates of cost of all items connected with the scheme.

HYDROGRAPHIC SURVEY.

As the position of the outlet would affect materially the whole scheme, its consideration received our earliest attention. A party for hydrographic work was organized, and began field operations July 27. This party consisted of Mr. Frank W. Ring, Hydrographic Assistant, one additional observer, two sailing-masters, and two boatmen. Their outfit included the cat-rigged boat "Fearless," and two tenders.

A projection of the harbor was first made, and the triangulation points given by the U. S. Coast Survey, together with others obtained by ourselves from these, by means of the plane table, were plotted upon it; the shore line being taken from a chart belonging to the Harbor Commissioners. A sufficient number of prominent points having been determined in this way, it was easy at any time to locate the position of a float by the sextant. At night, when

other objects could not be seen, the harbor lights furnished objects for observation.

Some difficulty was experienced in determining the best form of float. That first adopted consisted of four radiating arms, with canvas wings projecting downwards from them. [Fig. 1, Pl. 3.] Upon calm days this form indicated very fairly the surface velocity; but was too easily influenced by winds and waves to be used in windy weather, as it then invariably grounded on a lee shore.

A "surface and sub-surface" can-float [Fig. 2, Pl. 3] was used somewhat and gave better results; but the ordinary pole-float [Fig. 3, Pl. 3], about 14 feet long and 4 inches in diameter, was finally found to be the most satisfactory; indicating the mean current, which often differed both in direction and velocity from the surface current. This pole supported a flag or lantern, and, when there was danger of its grounding, a shorter one was substituted.

In all about fifty "Free-float" observations were made, from the vicinity of Moon, Castle, Thompson's, and Spectacle islands, varying in duration from 6 hours, or one ebb-tide, to 52 hours. Angles to determine the position of the float were taken each half hour, and were recorded, together with the direction and force of the wind and other data, in log-books especially prepared for the purpose.

A series of observations was also made upon eight sections, about Moon, Long, Rainsford, Thompson's, Hangman's, and Sunken islands, so that a comparative estimate might be had of the amount of water passing from Dorchester Bay to the northward or southward of Thompson's Island; and from Quincy Bay and Back Way to the northward or southward of Rainsford Island. All this work has been carefully plotted on a scale of $\frac{1}{10000}$, and is herewith submitted.

I should state that during our observations a man was stationed at a tide-gauge, and all velocities have been reduced to a mean rise and fall of ten feet.

The results deduced from our float observations may be briefly stated thus: —

Sewage discharged at Moon Island within the first three hours of ebb-tide would move seaward with an average velocity of .74 miles per hour, passing between Rainsford and Long islands, through Black-Rock Channel, and at the turn of tide would have reached a position between the Brewsters and George's Island. In its course it would be entirely outside of the inner harbor, which is assumed to be bounded by an arc of a circle, with the north part of Lower Middle Shoal for its centre, and a radius of 2.7 miles, traversing Squantum Head, Moon Head, Long and Deer islands.

Heavy matter in suspension, tending to sink at once, would be deposited in the channel of Back or Western Way, at this point 1,700 feet wide. Lighter matter in suspension would be deposited, at the turn of tide, in the vicinity of the Brewsters. Matter floating on or near the surface, in calm weather or with westerly winds, would go as far seaward as the rest, but probably in part at

Fig. 3.
POLE FLOAT.

CITY OF BOSTON
IMPROVED SEWERAGE.
FLOATS
USED DURING SURVEYS OF 1876-7.

Fig. 2.
CAN FLOAT.

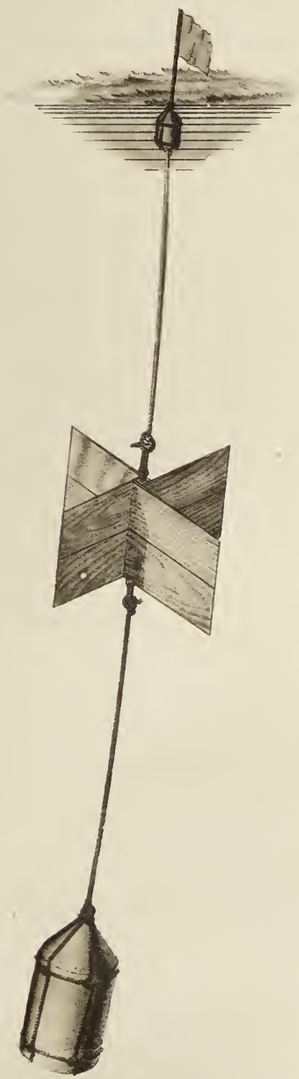


Fig. 1.
SURFACE FLOAT.

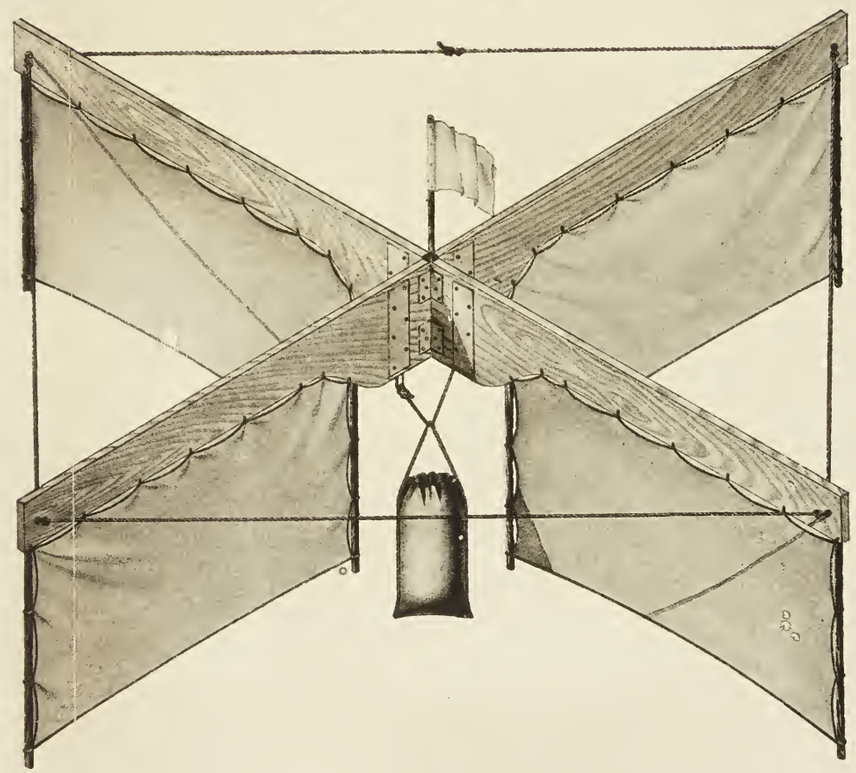
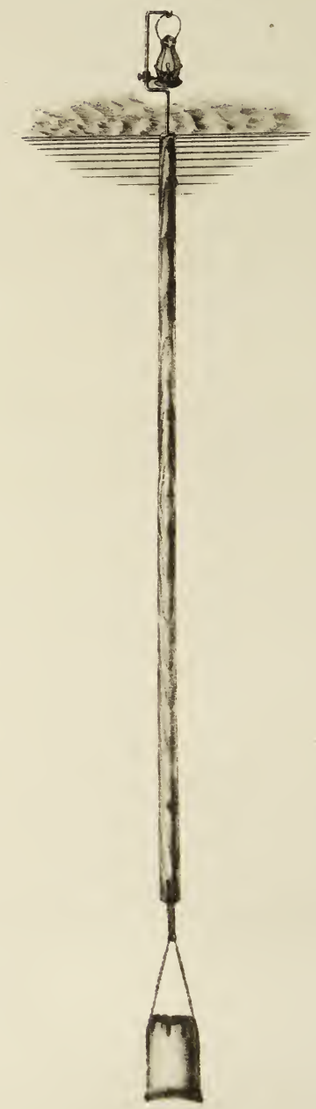


Fig. 3.
POLE FLOAT.



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least to the south of Rainsford Island; with a strong easterly wind it might be blown on to Moon Island or into Quincy Bay.

It is supposed that on its return with the flood tide the sewage would be so diffused as not to be perceptible. Most of it would probably return by Broad Sound to the vicinity of Deer Island, and with the next ebb would move still further seaward, not again to enter the harbor.

What would be its ultimate destiny is a matter of surmise. One hundred bottles, weighted and well corked, were put into the water at Moon Island, each containing a postal card addressed to our office, requesting the finder to mail it, stating when and where it was picked up. Of the second fifty deposited September 5, 1876, seventeen were blown upon Rainsford Island, and ten more were picked up at intervals during the next three weeks. One of these was found in the vicinity of Marshfield, about 25 miles south of its starting-point; a second at Salem, about the same distance north; and the remaining eight outside of Cape Cod, near Provincetown, Wellfleet, and Chatham, from 50 to 80 miles distant.

If the movement of these bottles may be taken as an indication of the diffusion of the sewage, it shows that in a few days it would be diluted to the point of practical annihilation, if, indeed, it were not actually destroyed by oxidation, or by being assimilated by the myriad animal organisms which pervade the sea.

Sewage discharged at Castle Island would follow Main Ship Channel and Broad Channel seaward, with an average velocity of .81 miles per hour, and would reach Broad Sound, some three miles distant from the inner harbor. A portion of it, however, might find its way into the still water between Lovell's and Gallop's islands. Its return and final exit would be similar to that of sewage discharged at Moon Island. Heavy matter would be deposited in the Main Ship Channel where it is 900 feet wide, and in close proximity to Lower Middle Shoal. Lighter suspended matter would be deposited in Broad Sound. Matter floating near the surface might be driven by an easterly wind upon Castle Island and South Boston.

Sewage discharged at Thompson's Island would divide into two parts; the lesser, skirting Spectacle Island to the north, would follow the edge of the current to Lovell's Island, three-quarters of a mile outside of the harbor. Most of it, however, would probably move slowly to the west of Spectacle Island through the Back Way, and thence to the north of Long Island, not going outside of the harbor.

Sewage discharged at Spectacle Island would follow the southerly edge of the channel, going about as far seawards as that discharged at Castle Island; but there would be more danger of a considerable portion turning into the comparatively still water of Main Ship Channel between Lovell's and Gallop's islands. Suspended matter would deposit in the ship channel and surface matter would be driven by an easterly wind into Dorchester Bay, and on to Thompson's Island.

In this connection it seems proper to consider the relative ad-

vantages which these different points offer for the location of the reservoir and outlet.

Moon Island is about 37 acres in extent. It has no present value, except as it affords poor pasturage to some cattle. A small quantity of inferior gravel has also been obtained there. A portion of the island is too high for an economical reservoir; but there are about 12 acres which would be available for that purpose, or enough for any anticipated increase in the quantity of sewage to be stored in future years. Should the advance of chemical science hereafter render it possible to obtain valuable returns from treatment of the sewage, there would be ample room for works, sufficiently remote from any habitation not to cause a nuisance.

A trial shaft was sunk 45 feet deep on the proposed site of the reservoir, and showed a gravelly soil mixed with a very hard clay; no curbing was required in sinking the shaft.

An outlet at this place presents no engineering difficulties; a good current is obtained 300 feet from the shore in five feet of water at low tide.

Thompson's Island affords a good site for a reservoir, but an expensive one. The managers of the "Farm School" established there state: "If the city should succeed in taking the island, then the managers would give up the *whole* island as unfit for the purposes of their trust; and the city would be held to supply a new site and buildings, and move the establishment to them. The rough estimate of such a substitution would be $200,000."

The outlet would have to extend into 25 feet of water to meet the current, which, as before stated, is an insufficient one.

Castle Island, 23 acres in extent, is sufficiently large; but there seems to be no reasonable hope that it could be obtained from the U. S. Government. A reservoir would, therefore, have to be constructed upon piles, between the island and South Boston, or upon the main land at City Point. Either would be expensive; the former on account of its foundation, the latter from the value of the land taken.

The outlet at this point presents no especial engineering difficulties.

A reservoir on Spectacle Island would be a very costly structure, the island being from 50 to 75 feet above low water.

The outlet would require to be constructed into about 20 feet of water.

LOCATION OF MAIN SEWER.

Land Survey.

A surveying party was put into the field July 29, 1876. All islands and shores affected by the scheme were connected by triangulation, and carefully surveyed and cross-sectioned. Limits of high and low water were determined by traverse lines and ordinates. A great number of soundings were taken. Lines and levels were run, and buildings located upon all practicable routes. All of this work has been plotted on a scale of 100 feet to an inch.

ARTESIAN BORINGS.

As, whatever should be the location of the outlet, it would be necessary to cross a portion of the harbor by embankment, bridge, tunnel, or siphon, to reach main land, it was thought advisable to ascertain carefully the nature of the ground through or upon which such structures must be located. To this end, a series of artesian borings were made in various parts of the harbor. As such work requires special tools and knowledge of handling them, a contract was entered into with Mr. M. A. Lathrop, an expert in the business. He began work July 31, 1876, and completed in all 25 borings, several of them being about 100 feet deep. A 5-inch gas-pipe was driven to the full depth, and the earth excavated inside of it. This process, while it tests the ground with perfect precision, is necessarily slow and expensive. It is thought that any future experiments of this nature may be made with sufficient accuracy, and much more rapidly and cheaply, by means of smaller pipes and some of the methods of hydraulic drilling lately perfected. Careful records and samples were taken of every change of ground met with, and profiles showing developments are herewith submitted.

The results of special value obtained from this portion of our survey are information concerning deep beds of marsh mud, and strata of water-bearing gravel upon some proposed lines; and the discovery of a practicable tunnel line between Old Harbor Point and Squantum Head.

EXPERT TESTIMONY.

While making borings upon the "Tunnel Line," Mr. D. D. McBean, of Chicago, an expert miner in rock and soft ground, was engaged to examine the borings and give his opinion upon the feasibility and cost of a tunnel as proposed.

Mr. N. S. Shaler, professor of geology at Harvard University, has also examined and reported upon the geological formation about the tunnel line.

LIGHT ROD BORINGS.

The peculiar geological formation of the region about Boston, causing frequent elevations of the bed rock, not always shown by surface indications, and the sometimes unsuspected presence of deep beds of marsh mud, rendered it necessary to test carefully the nature of the ground through which it was proposed to locate the sewers, since its character would form such an important element in their cost and stability. The slowness and cost of artesian methods of boring precluded their use. Light auger rods were therefore constructed and a party organized to use them. All lines about which there was any suspicion have been tested in this way, and profiles are submitted showing the result of the examinations. 486 borings in all have been made, from ten to eighty

feet deep, averaging twenty-three feet, and at an average cost, including the price of tools, of 33 cents per foot bored.

Site for Pumping-Station.

Four sites for the pumping-station have been examined; viz., Commercial Point, Fox Point, Old Harbor Point, and City Point.

Commercial Point presents several favorable conditions. A sufficient area could be obtained, though probably at considerable expense; the foundations would be good; the facilities for discharging coal are excellent. Although there are some dwellings in its vicinity, yet these are not very numerous nor valuable, and no large damages from any possible nuisance caused by the pumps or filth-hoist need be anticipated. To reach this point, with the contemplated "high-level sewer" would require an elevated conduit or siphon nearly a mile long.

Fox Point, the locality recommended by the commissioners, seems to be rather near the valuable residence-property of Savin Hill. It would be about as easy of access for the high-level sewage as Commercial Point. The great depth of mud at this point, between the shore and channel, would render the building of a coal wharf a difficult and costly operation. For the same reason any method of crossing the river would be so uncertain and expensive that no estimates have been made by this line.

Old Harbor Point comprises over a hundred acres, which is valued by the city assessors at about $200 an acre. It is easy of access, and its extremity is rather over a mile distant from the high land from whence high-level sewage would have to be conveyed. It is itself destitute of habitations, and sufficiently remote from any to afford assurance that operations carried on there would not be a source of offence. It would afford a good foundation for the pumps and other structures. About four acres, at its extremity, have been filled to grade fourteen, and a wharf and dock are already constructed, but would require some extension and dredging to make them accessible to coal vessels. A roadway, averaging forty feet wide, extends through the length of the point and connects it with the city streets and the Old Colony Railroad.

A pumping-station at City Point would be in the midst of a populous and valuable residence-portion of the city. The land required would be costly, and there would be considerable expense in constructing docks for coal. The foundations would be excellent. The chief objection to this locality is its proximity to what will probably be in the near future a dense population.

Outfall Sewers.

The routes of the outfall sewers, as located, are shown on the accompanying plan. With the pumping-station at Commercial Point, the sewage, after crossing Neponset River by a wrought-iron siphon, or by a bridge and siphon, follows the shore of New Squantum and crosses Seal Bay on piles to Squantum Neck, which

it traverses through a rock excavation; thence again on piles across about a thousand feet of mud bottom to a sand bar, and in embankment to the reservoir at Moon Island.

From Old Harbor Point the route would be by tunnel to Squantum Neck, and thence as before to Moon Island.

From City Point the line as shown is direct to a point near the north shore of Castle Island, crossing the flats on piles.

MAIN SEWER WEST OF PUMPING-STATION.

Two elements enter largely into the selection of a route from the pumping-station at tide-water to the city proper; one is the contour of the region to be traversed, affecting the depth of cutting required; the other the character of the soil, affecting the cost of excavation and the ease of securing good foundations. A contour map has been prepared, partly from data obtained from city maps and partly from original surveys, which embraces all that portion of the city between Commercial Point, Old Harbor Point, and Tremont street.

This shows by simple inspection that the possible routes across Dorchester, by which long and expensive deep cuttings can be avoided, are limited to two or three at most. Examinations and estimates have been made of every line which seemed in the least practicable, and the ones preferred are shown on the accompanying plan.

From City Point the best line seems to be by Sixth and N streets, to Ninth street; thence by Ninth street and its extension to Lowland street; thence by Lowland street to an extension of Preble street, and by Preble street and Swett street to Albany street. It should be said that Preble street, while it is the most direct, if not the only available route by which to reach Swett street, is not, as at present laid out, sufficiently wide for our work. It has an average width of 20 feet, and a trench for constructing the 9 by 11 sewer proposed at that point will require to be 18 feet wide. There is a plan, however, for widening the street to 50 feet, by taking property on its south side, and it is assumed that this will be done; but the cost of such change has not been included in the estimate.

From Albany street westward the sewer follows Northampton street to Washington street, and then turns into Camden street, by which it crosses the Boston & Providence Railroad, and extends to a little beyond Huntington avenue. This arrangement slightly transcends the order by which it was terminated at Tremont street; but as our arrangement of secondary intercepting sewers requires one through Camden street, between Tremont street and Huntington avenue, it was thought better to extend the main that distance, it being in a direction towards its ultimate objective point at Cottage Farm station.

SECONDARY INTERCEPTING SEWERS.

The only portion of the city which it has seemed safe to leave for the present unconnected with the proposed scheme is a limited

area at the North End, comprised between Prince street on the west and Lewis wharf on the east.

The drainage from this district, it is believed, causes little, if any, offence. It is small in quantity, and discharges into deep water, with strong tidal currents.

The intercepting sewer on the west side of the city has been extended beyond the point indicated by the commissioners, so as to include the low area between Leverett and Prince streets. A few of the sewers in this region are too low to be intercepted, and will have to be rebuilt. The Canal-street sewer, for instance, is at about the level of low water, and for a long distance is lower than its outlet, being in fact but an extended cesspool. The cost of these alterations has been included in the estimates.

The course of the proposed intercepting sewers is shown upon the accompanying plan. It will be noticed that a different route has been selected from that recommended by the commissioners, by which to convey the west-side sewage to the main drain. The original recommendation was for a sewer through Park square, Eliot, and Kneeland streets, to connect with the east-side sewer at South street. It was thought that the inconvenience to trade and the public generally, which would be caused by blocking such crowded thoroughfares and interfering with the approaches to three railroads, together with the difficulty of getting under Tremont street, Washington street, and Harrison avenue, which could not be closed, made this a route to be avoided if it were possible to find another. The alternative first contemplated was a line from Marlboro' street through Parker street and the extension of Camden street. While this was under consideration, however, the city abandoned a portion of Parker street, and it is now proposed to follow Hereford street extended, across the Boston & Albany Railroad, to the street parallel to and north of Huntington avenue, and thence to the main on Camden street.

The sewage from Stony-brook area is to be intercepted by a sewer, as shown, beginning at Elmwood street; thence along the southerly side of Stony-brook culvert to Cabot street; through Cabot and Tremont streets to the main on Camden street, with a branch in Ruggles street, and two siphons under Stony-brook culvert.

The intercepting sewer for the east side of the city proper starts on Atlantic avenue at Clinton street, and, following the avenue and Federal street to Kneeland street, turns into the latter, and thence follows South and Lehigh streets to Albany street. A modification of this route, which would avoid incommoding the Old Colony freight depot, and which may, on further consideration, seem more desirable, would be to continue in Federal street nearly to the bridge, and thence pass under the Old Colony freight-yard to Lehigh street. From Lehigh street the line follows Albany street to the main at Northampton street. Should the Roxbury canal not be filled it will be necessary to pass under it by a siphon; should it be filled it may be thought preferable to follow East Chester park to Swett street.

It will be necessary to construct the Dorchester-brook sewer (now

a ditch) about a thousand feet to connect with the Moon-Island scheme, or about three thousand feet to connect with the Castle-island scheme.

The South Boston intercepting sewer is intended from the first to take all the drainage from that district which now goes into South Bay; and also that which now discharges on to the flats of Dorchester Bay. From West First street, at its intersection with Dorchester avenue, it follows Foundry street, crosses the Old Colony and New York & New England Railroads just west of the bridge on Dorchester avenue; thence in said avenue to its junction with the main at Swett street or Mt. Vernon street.

This sewer is to be large enough to take the whole drainage of South Boston, when it shall ultimately be connected. The sewage which now goes into Dorchester Bay is intercepted in the Castle Island scheme by the main itself; in the Moon-Island scheme a branch is carried from N street through Ninth, Lowland, and Preble streets.

Plans and profiles on a working scale have been made of the routes of the secondary intercepting sewers, showing all the lateral sewers and drains already built, which would be intercepted, with their sizes and grades. Data for these have been obtained through the courtesy of the City Surveyor and the Superintendent of Sewers.

SIZES AND METHODS OF CONSTRUCTION.

TERRITORY AND POPULATION.

In proportioning the sizes of our works it is necessary to fix some limit, however distant, to the territory which it is proposed to treat upon one comprehensive system. A natural limit for Boston and vicinity seems to be Charles and Neponset rivers, which, with Mother Brook connecting them, include an area of fifty-seven and eight-tenths square miles. A plan of this region has been made from data obtained from different sources, showing its principal drainage areas and contour lines for various elevations above low-water mark at Boston.

The commissioners, in their report, assume that most of the territory above grade forty can eventually be drained by a high-level intercepting sewer by gravity alone, without the need of pumping. This leaves about twelve square miles below grade forty to be drained by our present low-level intercepting scheme. Less than one-half of this is now sewered, and it will probably be long before much of the remainder will be built upon, and become tributary to the sewer. On the other hand about two square miles above grade forty is already sewered, and a larger area still will have to be cared for until the high-level sewer shall have been constructed. If, then, we take fifteen square miles, or 9,600 acres, as the area to be ultimately included in our present scheme, we shall have provided for all the territory below grade forty, and in addition three square miles, or 1,920 acres, above that grade, — an ample provision for any regions that it may be impossible to reach with the high-level sewer.

The future population upon this territory is taken at 600,000, being an average of 40,000 to each square mile, — a density nearly equal to that of the old city proper at present.

SEWAGE AND RAINFALL.

Having assumed 15 square miles and a population of 600,000 as a basis for calculation, it remains to determine the capacity required by the main intercepting sewer. Sewage proper is about identical in quantity with the water supply, which latter may be taken at ten cubic feet or seventy-five gallons per day for each inhabitant. For a maximum rate of flow it is safe to take double the average; this is in excess of English practice.

The rainfall provided for is one-fourth of an inch in twenty-four hours. This is in accordance with the recommendation of the commissioners, and common English practice in similar works. It provides in reality for a rainfall of double this amount, or one-half of an inch in twenty-four hours, as it is found that not more than half of a light rain reaches the sewers. Until the whole fifteen square miles is sewered, and the maximum of population reached, a much larger rainfall can be conveyed in the sewer. For convenience in calculation, the rainfall has been taken at $\frac{24}{100}$ of an inch in twenty-four hours instead of $\frac{25}{100}$ or one-quarter of an inch. This gives $\frac{1}{100}$ inch per hour, and $\frac{\text{No. of acres}}{100}$ = cubic feet per second, nearly.

The inclination of the main sewer is taken at one in 2,500, and of the secondary sewers, except the Stony-brook sewer, at one in 2,000. The elevation at Tremont street is five feet below low water.

The following tables show the method used in determining the sizes of these sewers: —

Territory Included between the Charles and Neponset Rivers.

DISTRICT.	TOTAL ACREAGE.			ACREAGE PROVIDED FOR.			ACREAGE SEWERED AT PRESENT.			POPULATION PROVIDED FOR.	
	Below 40.	Above 40.	Total.	Below 40.	Above 40.	Total.	Below 40.	Above 40.	Total.	Present.	Anticipated.
West side City Proper	755	65	820	755	65	820	485	65	550	64,000	93,000
East side City Proper	865	35	900	865	35	900	865	35	900	68,500	95,000
Stony-brook Area	1,220	6,280	7,500	1,220	500	1,720	400	600	1,000	18,500	80,000
Roxbury-canal Area south of Northampton st.	307	393	700	307	.....	307	120	180	300	5,000	26,000
Dorchester-brook Area	190	310	500	190	.....	190	100	100	200	2,000	13,000
Dorchester Area	1,763	2,337	4,100	1,763	.....	1,763	300	50	350	5,000	82,000
South Boston	730	170	900	730	170	900	730	170	900	58,000	100,000
Brookline	342	3,778	4,120	342	308	650	50	50	100	4,500	29,000
Brighton	1,128	1,479	2,607	1,128	372	1,500	.....	.....	.....	4,500	52,500
Newton	250	11,750	12,000	250	200	450	.....	.....	.....	1,350	15,500
Dedham	.....	421	421	.....	.....	.....	.....	.....	.....	300	.....
Watertown	50	68	118	50	50	100	.....	.....	.....	300	3,500
Waltham	50	481	531	50	50	100	.....	.....	.....	300	3,500
Hyde Park	100	1,721	1,821	100	100	200	.....	.....	.....	600	7,000
	7,750	29,288	37,038	7,750	1,850	9,600	3,050	1,250	4,300	232,550	600,000
	12 sq. miles.	45.8 sq. miles.	57.8 sq. miles.	12 sq. miles.	3 sq. miles.	15 sq. miles.	4.8 sq. miles.	1.9 sq. miles.	6.7 sq. miles.		

Main Intercepting Sewer.

SECTION.	DISTRICT DRAINED.	Acreage Provided for.			Acreage sewered.	Population.		Anticipated Max. Sewage in cub. Feet per sec.				Size of Sewer (in feet.)	Discharge running full in cub. ft. per sec. (Neville).
		Below 40.	Above 40.	Total.		Present.	Anticipated.	From Population = av. × 2.	¼″ Rainfall in 24 hours.	Total.	Accumulated Sewage.		
Cottage Farm Station to Camden street	Waltham Area	50	50	100	...	300	3,500	0.81	1.00	1.81	...	...	...
	Newton Area	250	200	450	...	1,350	15,500	3.58	4.50	8.08	9.89	...	...
	Watertown Area	50	50	100	...	300	3,500	0.81	1.00	1.81	11.70	...	...
	Brighton Area	1,128	372	1,500	...	4,500	52,500	12.14	15.00	27.14	38.84	...	...
	Brookline Area	342	308	650	100	4,500	29,000	6.71	6.50	13.21	52.05	6.	70.65
Camden st. to Tremont st.	West side City Proper	755	65	820	550	64,000	93,000	21.51	8.20	29.71	81.76	7.	104.91
Tremont st. to Albany st.	Stony-brook Area	1,220	500	1,720	1,000	18,500	80,000	18.50	17.20	35.70	117.46	8.	147.28
	Hyde Park Area	100	100	200	...	600	7,000	1.62	2.00	3.62	121.08		
Albany st. to Dor. Brook	East side of City Proper	865	35	900	900	68,500	95,000	21.97	9 00	30.97	152.05	9.	199.12
	Roxbury-canal Area	307	...	307	300	5,000	26,000	6.01	3.07	9.08	161.13		
Dor. Brook to Dor. ave.	Dorchester-brook Area	190	...	190	200	2,000	13,000	3.01	1.90	4.91	166.04	9.	199.12
Dor. ave. to Cow Pasture	South Boston	730	170	900	900	58,000	100,000	23.13	9.00	32.13	198.17	9 × 11	272.12
Cow Pasture to Pumping sta.	Dorchester Area	1,763	...	1,763	350	5,000	82,000	18.97	17.63	36.60	234.77	9 × 11	272.12
		7,750	1,850	9,600	4,300	232,550	600,000	138.77	96.00	234.77	...	...	...
		12 square miles.	3 square miles.	15 square miles.	6.7 square miles.								

CONSTRUCTION OF SEWERS.

A circular form has been generally adopted for all the smaller sewers. As there will be a constant flow in them, nothing would be gained in point of friction, and something lost in strength and ease of construction, by using an egg-shape. For the purpose of our estimates, all of four feet diameter and over are assumed to be upon plank foundations, and reinforced on their sides with a backing of rubble masonry up to or above the springing line. In firm ground this would not be necessary, and something would be saved by omitting this extra masonry. All junctions are to be on easy curves tangent to the axis of the main and lateral sewers. The connections are arranged to admit only the dry-weather flow, and so much more as shall be desired. In time of heavy rain, the excess passing over a weir will continue either over or under the intercepting sewer to its former outlet.

The estimates include the cost of double tide-gates for all outlets, of the pattern now in use in the city. There are to be a sufficient number of flushing-gates at intervals in each of the secondary intercepting sewers.

The form and construction of the main and outfall sewers is best shown by reference to the accompanying plans.

Should the main sewer be located in the extension of East Chester Park it will be necessary to carry it for 450 feet over a bed of mud 100 feet deep. Here it is proposed to omit a section of masonry, and use in its stead a round wooden culvert placed on one side of the street. After the filling at this point shall have settled, and become sufficiently compacted to afford a firm foundation, which may not occur for some years, it will be possible to build the missing section without disturbing the flow. In other cases of bad foundation it is proposed to use piling to support the sewer. Where the outfall sewer is carried in embankment, it is to be tied with 2-inch round-iron rods through the arch, and with 3-inch × 1-inch bar-iron below the invert, to insure its stability. This iron will doubtless rust out in time, but not before the foundation and embankment shall have become secure.

The outfall sewer will in all cases be covered with a filling 5 feet deep over its crown and 20 feet wide on top, to weight down the arch, and to protect it from the action of frost. This embankment, when exposed to the wash of water, will be paved with stones on edge, from grade 16 to low-water mark, and below that point protected by rip-rap.

TUNNEL.

Should the Old Harbor Point line be adopted, a portion of it, 7,920 feet long, between the Point and Squantum Neck, will be in tunnel, with shafts at the pumping-station and on the westerly side of the neck.

The grade as proposed is 100 feet below low water, but under certain contingencies it may be lower. With the grade at —100, 2,120 feet in length from the west shaft will be in a stiff, plastic

clay, and the balance in rock, consisting of alternate beds of shale and conglomerate. In the clay the tunnel is to be circular, 7½ feet in internal diameter, and with walls 12 inches or 16 inches thick, as the nature of the ground may require. In rock it will have an equivalent area, but to facilitate construction will have greater breadth and a flatter invert, and will have a brick lining averaging 12 inches thick.

For a certain time after completion of the works, while only a portion of the territory and population provided for are contributing to the sewage, it is evident that the flow in the tunnel, especially the minimum dry-weather flow, will not have sufficient velocity to prevent deposits of the heavier matters in suspension. To prevent the tunnel from silting up, till such a time as the regular flow shall be sufficient to scour it, a flushing-tank is designed to be constructed at the pumping-station, high enough and of sufficient size to flush the tunnel when necessary. It will be filled by the pumps and discharged through the tunnel under a head.

At the eastern or farther shaft there will be a sump to receive deposits, and suitable arrangements for removing them.

Reservoir and Outlets.

Five plates are herewith submitted, showing the details of construction of the reservoir and outlets. As designed, the reservoir covers an area of 235,000 square feet, and is arranged so that it may be enlarged to double its capacity when future need shall require it. It is built of stone and brick masonry, and is entirely covered with brick arches supported on piers. The floor is 9 feet above low water, surfaced with concrete, and having gutters paved with brick. It is divided into four sections, either of which may be disconnected for the purpose of cleansing. The reservoir is arranged with suitable gates and galleries, so that its contents can be discharged at any desired interval after the turn of high tide.

The whole structure is to be covered with earth filling to the depth of 3 feet. The outlets are designed to discharge under water through four openings.

The following rough approximations of the kinds and amounts of material required for the completion of the proposed works, exclusive of the pumping-station, may be of interest: —

Earth excavation	650,000	cubic yards.
Rock "	26,000	"
Earth filling	460,000	"
Brick	40,000,000	
Stone masonry	60,000	"
Concrete	23,000	"
Lumber	18,000,000	feet.
Piles	5,000	

Respectfully submitted,

ELIOT C. CLARKE,

Prin. Asst. Engineer.

A REPORT ON THE GEOLOGY OF THE DISTRICT TRAVERSED BY THE SURVEYS FOR THE TUNNEL FROM BOSTON TO MOON ISLAND.

In order to give a general basis for an understanding of the problems that present themselves in connection with the geology of this line, it will be necessary to set forth, in a brief way, the structure of the rocks lying in the basin of Boston Harbor.

The whole of the area covered by the waters of this set of harbors lying westwardly of Nahant and Nantasket Points, lies in a series of relatively soft rocks, which occupy a great synclinal or trough, that by its form has served to protect them from decay and erosion. This trough was formed between the mountain ridges, the roots of which still remaining form the ridges of the Milton and Medford hills. The beds that constitute this series of newer rocks were once much more extensive than they now are, wrapping over the hills on either side, whence decay has long since removed them.

The depth of this trough is not well known. Borings made at the Boston Gas-works seemed to indicate that in the central part of its basin its floor is at least 1,600 feet below the present surface. As is frequently the case in mountain troughs, the movements of the rocks, consequent on the formation of the furrow, has brought about a great deal of disturbance in the beds it has imprisoned. These disturbances have given rise to sundry changes, which have profoundedly affected the constitution of the beds. They have been rent by faults; breakages of an incipient character, known as joints and cleavages, have been originated in them, while the original lines of weakness derived from their bedding have been quite effaced. Dykes or fissures filled with matter intruded in a state of fusion from heat, and veins or deposits from heated waters, abound in these beds, and are to be considered consequences of the disturbances which the formation of the synclinal brought about.

The rocks which appear at the surface in this synclinal belong to several distinct groups, and represent a very considerable part of the great geological section, mechanically considered; and this is the only part of their phenomena that concerns us in this present inquiry. They are divisible into two sets: (A) The rocks having a bedded character, showing distinctly all the characteristic marks of water action operating in their formation; and (B) rocks which, having originally been stratified by water, have since been melted by fire and forced into the crevices broken in the other series, forming the masses known as dykes.

In the section it is proposed to traverse in passing along any of

the lines of survey between the neighborhood of Savin Hill and Moon Island, the rocks to be passed through of the first or distinctly stratified class are probably all within the series known as the Roxbury pudding-stone beds. This set of beds consists of a succession of conglomerates and clay-slates with a few thin bedded sandstones.

The whole formation has a thickness of several thousand feet,—probably from three to six thousand. It is nowhere shown in continuous sections, and is so broken by faults and hidden by recent deposits of gravel, clay, etc., that it is impossible to give an accurate account of the succession of its several members.

It is clear, however, that the conglomerate and shaly elements occupy about equal parts of the section, and that there are a dozen or more alternations of these materials. The conglomerates of this series are varied in their composition. The greater part of them consist of densely aggregated, closely cemented pebbles and boulders, principally of the ancient syenites, granites, felsites, and other rocks having a high degree of hardness. In these deposits generally the cementing matter binds the pebbles so strongly together that it is often difficult to separate the separate bits from the mass without fracturing them.

Their general hardness can be easily ascertained by an inspection of the quarries in the neighborhood; those at Savin Hill, on Commercial street and at other points in the Dorchester and Highland Districts, will make this clearer than it can be made by words. The clay-slates and sandstones are very much softer than the conglomerates. They are not often worked, as they yield few good quarry stones. An inspection of the quarries in North Quincy will give a good general idea of their resistance to working. At Squantum Head other forms of these shales may be conveniently seen. They all have a low degree of hardness, and may be accounted very favorable material in which to do any tunnelling work.

This point is important, inasmuch as a large part of the section between the Savin Hill shore and Squantum Neck is of this character.

The mechanical condition of these beds, impressed on them since their formation on some ancient sea floor, are substantially as follows: when the mountain downfold or trough in which these beds lie was formed, they were subjected to very great pressures consequent on the packing together of the materials into a less compass. This process has had a great variety of effects upon the rocks, of which the most important are as follows: in the first place, the beds, before horizontal, were tilted at high angles to the horizon, the average slope impressed on them being, in this district, about twenty-two degrees. This dip varies in direction, but the strike or line of no dip, drawn in the plane of the bedding, is about north 50° to 60° E. When this crumpling took place, the rocks were broken through in a great many places, and the consequent faults, varying from a few inches to several hundred feet, permitted the broken fragments to slide vertically and sometimes horizontally in relation to each other. The number of these breaks is very great. At cer-

tain points they occur every few feet in the section, but when frequent they are uniformly of small amount.

At Squantum Head, on the north-east point, these small dislocations can be readily seen, as they are well disclosed by the sea-cliff section. These breaks were always attended by the tearing of the walls sliding on each other, and when the movement amounted to more than a few feet, there was often a *breccia* or mass of angular broken fragments accumulated between the two sides of the fault. As these movements were always made under the influence of strong compressive forces, the walls of these faults are always drawn very closely together, the packing of *breccia* being often ground into powder in the process. Wherever irregularities in the neighboring walls of rock have left vacancies, the action of heated water has served to fill in the interspaces so that the faults seldom present any opening of considerable size. In perhaps a score of cases where I have been able to trace these faults for a considerable distance the actual space for the passage of water has not often exceeded the thickness of a knife-blade, and has never been continuous for considerable distances. Near the surface of the ground these beds are sometimes affected by weathering which has developed the faults into open fissures; but below the depth of say 20 feet I have never found them open in any section I have been enabled to study.

The next class of breaks to be considered are the so-called *joint planes* or breaks, which have not been attended by faulting. This class of fissures is much more important in giving the face to the rock than the fault lines. The faults are comparatively rare, not averaging one in one hundred feet over any considerable area. The joint planes are found at distances of from a few feet to a few inches. They are the product of the compression to which the rock has been subjected, and, as the compression has acted in several different directions, there are several of these joint planes inclined in various directions. Sometimes the recent shrinkage of the rocks, consequent on the continued loss of heat from the earth as well as from chemical changes, has resulted in developing these incipient fractures into slightly gaping furrows. When this occurs, which is rather seldom in this district, the opening does not generally exceed the smallest visible fraction of an inch, and is generally more of less closed in places by deposits from water. Generally the pressure which produced these joints is still so far existing that their walls are kept closely compressed.

One important effect arising from these joints is the ease with which the rock can be separated from the beds, there being no difficulty in removing masses from the layers, so distinctly are they separated by these lines of breakage. There are at least six or seven distinct joint planes in this set of beds, but only two or three are evident in any small area, and the extent to which these cut the rock is variable in different parts of any one layer. One of these sets of joint planes is particularly conspicuous: its general direction is northeast and southwest; the dip of the plane being to the north and the inclination about 23° to the horizon. This set of planes is found throughout this area, and cuts the rock so often that it gives a look of bedding well calculated to deceive the incautious eye.

The true slope of the beds is to the south by east, N. 160°; but this foliation, for such in fact it is, would be first taken by the observer for the plane of stratification. This joint plane will materially assist the work of driving a heading in the rocks between Savin Hill and Squantum.

The remaining feature which will have to be considered in our discussion of the conglomerate series is the dyke, or injected rocks that traverse it. These rocks are to be regarded as masses of lower lying stratified beds that have been melted and forced up through crevices in this superior conglomerate series. There are three points that we need to consider with regard to them, — the direction of the fissures, their width and hardness, and the closeness of the fissure or break that separates them from the country rock. There are two series of these dykes, one set lying in a meridional direction, the other running nearly east and west, generally a little north of east and south of west. The first of these series is generally rather narrow, few of them being over five to ten feet in width; those of the other series are sometimes as wide as thirty feet. There is, in Cambridge and Somerville, a class of supposed dyke materials well exposed, near the generally known "powder house" or ancient windmill, which was used for an ammunition store during the Revolution. If these deposits are really dykes, there are some of the north and south series that are over one hundred feet wide. I am satisfied, however, that these wide dykes will not be traversed by the proposed tunnel, as no trace of the material composing them is found in the drift waste south of the proposed line. The average width of the dykes of this district is not over five feet; their hardness does not exceed that of granite or the syenite of the Quincy quarries. There seems to be relatively few of these trappean rocks in this district, between the Savin Hill and the Squantum shore, if we may judge by the drift materials south of the line. If by any chance the heading should be found to run parallel with one of these dykes, it would be easy to escape from its path by a slight curve. The matter having been forced into the dyke fissures under great pressure, it greatly compressed the neighboring stratified rock and, although a certain shrinkage of the mass took place in its cooling, the elasticity of the rocks caused the walls to keep close to the contents of the chasm. Only in rare cases have I found the margin between these two rocks open enough to admit the passage of any considerable amount of water. When a cavity occurs it is generally filled with deposits laid down from heated waters. I should be surprised if a *miner's inch* of water was ever poured into the tunnel through any one of these furrows.*

There is another class of deposits in these beds which is so closely connected with the fault phenomena as scarcely to require a separate mention. I refer to the veins or fissures filled with deposits of various minerals, such as quartz and carbonate of lime. These deposits occupy shallow furrows, and are so insignificant as not to require discussion in this report. Their walls are almost

* A miner's inch of water is three thousand two hundred cubic feet in twenty-four hours, or the amount that will flow through an inch of aperture with a four-foot head.

invariably closely bound together by the vein stone. As a whole, I am satisfied that these rocks are fairly impervious to water, being as satisfactory in this respect as any that could be found along any part of our coast. They contain little interstitial water, not enough to make any trouble. The fissures are generally very narrow and at greater depths below the surface than twenty feet are apt to be reasonably tight. The materials to be traversed are decidedly less hard than those traversed in many great tunnels, that of Hoosac Mountain for instance, and are on the whole less shaken. I am inclined to believe that the overlying drift will probably prevent the entrance of water into the few fissures that will be encountered except in the cases in which it (the drift) is composed of sand, where it comes into contact with the surface of the rock. It should be said, however, that the circumstances of occurrence of these rocks are such as to make accurate and complete determinations quite impossible. In a region so profoundly disturbed by the tilting and faulting of its beds, it is impossible to make certain of the exact condition of any rocks unless they are seen. The greater part of the rock surface in this district is masked by the sea, or by the very deep deposits of drift materials. The conclusions before arrived at have a good deal of evidence in their favor, but cannot be accepted as absolute certainties.

I shall now consider the character of the tops of these bed rocks, with the object of determining the depth below the surface at which a tunnel would have to be driven in order to keep below the accidental depressions of their surface contours. I am satisfied that this is a matter of more importance than it would seem to be at first sight.

In order to understand the character of the contour of the bed rocks of this district, it will be necessary briefly to consider the conditions under which its present shape was determined.

It is one of the best-established facts in physical geology that this country has been subjected to the action of an ice-sheet, moving after the fashion of existing glaciers. To this moving ice, armed at its base with imbedded pebbles and sand, and underrun by streams of water, we owe the principal contour lines of our bed rocks. The peculiar circumstances of this wearing, done by the moving continental glacier, may be set before the reader in a brief way, taking the principal results of running water and contrasting them with the action of slow-moving ice, in order to obtain the following contrasts of conditions: —

1st. Running water at any one time cuts on a very small fraction of the surface of the district it drains; at most scarcely one hundredth part of any given drainage district is subject to its action. The ice action on the contrary involves the whole surface occupied by the glacial sheet.

2d. Running water in ordinary conditions cuts in proportion to the velocity of the movement, and not in proportion to the depth of the stream. Ice, on the other hand, does not vary in its cutting power with the rate of flow, but varies in proportion to the depth

of the ice-sheet. The deeper the sheet the greater the weight upon any given section and the stronger the erosive action.

From these differences it results that the character of surfaces made by the two actions is essentially different. A region that owes its contours to water action has, with rare exceptions, all of its slopes leading continuously downward to the sea. When, on the other hand, the contours are the product of ice action, there is absolutely no such continuity of slope. We then have all sorts of irregularities of curve, deep pools and trenches often quite without outlet, and of all sizes from a few inches to miles in diameter, marking the district worn by glacial action. Wherever the rock happened to be soft, it is burrowed out to a great depth; beside this depression, a hard mass may rise up like a steep dome, and so the wildest irregularity is produced. Generally the deeper cavities run in a northwest and southeast direction; and, inasmuch as the deeper they became the stronger the cutting action of the ice, the deep trenches are apt to be more continuous than the shallow cuts. No law of form can be traced which will enable us to determine the details of contour of a hidden surface with accuracy. It may be said, however, that at the mouth of each distinct land valley we find a very deep, wide trough continued out to sea, cutting through all obstacles, or at most leaving little save shreds of any barrier that it may meet. The other depressions away from the axes of a main valley are apt to be shorter and shallower.

With these conditions of the surface it is imperatively necessary to make a very careful reconnoissance by borings of the line to be traversed, so as to avoid the risk of encountering these irregular depressions. From a careful inspection of similar rocks when exposed in the neighborhood of the proposed work, I consider that if these soundings are made at distances of one hundred feet apart it will be necessary to allow at least fifty feet for the possible depression between these points of sounding. If the distance between the soundings is reduced to fifty feet, there should be a proportional allowance for the irregularity between them.

Even with this allowance I do not conceive that there would be perfect security against encountering deep depressions; for it is not unlikely that in the lower depths which would be attained beneath the harbor the irregularity in the cutting action may be found greater than upon the higher levels of the shore.

On top of the bed rocks we have been considering, we have another set of deposits of a much more complicated character, — namely those left by the glacial sheet, or formed from its remains by subsequent water action. In order to make their nature clear, it will be necessary to consider in brief the circumstances under which they have been laid down.

The ice-sheet in its movement over the surface, aided by the sub-glacial streams of water, cut up and mingled into the lower few hundred feet of ice a vast quantity of stones, gravel, sand, and mud. When the sheet melted this mass sank down upon the land and sea floors wherever they had been covered by the ice. We still find the remains of this deposit in the true boulder-clay, or till

such as caps the hills in Cambridge and other neighboring districts. This deposit is the oldest and least changed of all the products of the glacial period. It is a dense, impervious mass, made up of boulders, sand, and mud, rudely commingled together in an unstratified order.

As this mass sank down upon the land it was cut and swept by the streams arising from the melting of the ice, and from the action of the sea which, in the then-existing level of the shore, extended much further inland than at present.

The result is that, in the main, this mass was swept away and rearranged into more varied deposits of sand, mud, and pebbles. The only extensive deposits I have been able to find in this district lie upon the hill-tops, where they have been in a measure protected against the action of running water. The nearer we come to the sea level the less there is of this unassorted drift. I doubt if there is any of it below high-tide mark, except in the deeper pockets, such as that which lies off the mouth of the Neponset river. Wherever the currents have had access to it, we find it changed into a set of beds where the several component elements are distributed according to their sizes, — some beds being made up entirely of mud, others of sand, others of gravel of varying degrees of fineness; while at points we find beds containing little save large boulders, all the other materials having been swept away by strong currents.

These several masses of strata are not combined in any regular, well-ordered succession. There are at certain parts traces of uniformity in their relations, but the period when they were laid down was one of very great disturbances in the flow of the waters. The tidal currents and the land streams were continually changing their courses; their old channels were repeatedly filled and reopened, each change bringing additional complications to the order of the forming strata. To add to the confusion the ice, after retreating from the shore and being for a while limited to the high hills, again advanced in the shape of isolated glacial streams as far as our shore line. This movement ploughed up the previously arranged beds of sand and gravel, and required a readjustment of all their conditions near the mouths of our main rivers. The result is that no geological skill can predict the character of the beds that will be encountered in a deep excavation of any considerable length within the drift near the sea level of New England.

In this puzzling structure of our glacial deposits there are a few general statements which have a certain value as guides to our expectations. In the first place we may say that all the rearranged sands and gravels are readily permeable to water. Tunnelling in them with an open heading beneath the surface of the water is quite out of the question. The deposits holding clay are generally water-tight, or reasonably so. There is always a risk of encountering local beds of sand and gravel which have filled old channels in these clays. The position of these unseen old channels is not determinable by any means of inference.

The surface of all these glacial deposits below the water level is generally covered over by a bed of mud which has been formed since the present adjustment of the geography was effected. This deposit is somewhat impervious to water; when more than three or

four feet deep it is usually considerably consolidated by pressure and may be reckoned on as a protection against the water of the sea. The advantage which this gives is in good part counterbalanced by the fact that the land water is held beneath these muds to a greater or less extent, and as they often extend above tide mark they serve to introduce an element of pressure tending to drive the rain-water more forcibly into the submerged beds of sand and gravel.

I should say that I am inclined to believe that the deep Neponset channel will be found to contain rather more compact materials, these containing more clay, and rather more free from local sand-filled channels, than the most of our deposits of the same general nature. It should also be understood that in making soundings with the drill in this glacial drift, it is not possible to determine by a single boring the position of the bed rock. It often happens that there are many large boulders in the glacial beds, particularly near their base. The drill will thus seem to indicate bed rock when the actual position of that surface may be many feet below the place occupied by the boulder. In most cases two or three soundings should be made in order to avoid this element of risk. Yet, when even this care is taken, perfect certainty cannot be obtained, for it not infrequently happens that more than one-half of any horizontal plane will be covered by the surface of these massive boulders. Borings made with the diamond drill, by giving "cores" of the rock which the drill entered, would materially aid in this determination. In using the ordinary drill it will be better to make the three borings in one line, say ten feet apart. If they encounter rock on about the same plane it will be most likely that the bed rocks have been struck, for there are very few boulders in this country twenty feet in length. If the points where rock is struck should be in widely different horizontal planes, then it will have to be decided by other borings whether it is the bed rock or not. My experience is that large boulders are most frequently found on the convex curves of a glacial worn surface. This experience concerns points above the water level, for there have been very few sections made below tide-mark on our shores. I see no reason, however, why the conditions should be different below the surface of the present shore.

I should, therefore, advise that all the points where bed rock appears to have been struck should be carefully plotted on one diagram, and that wherever a stony ridge is shown a special study of the problem should be made by increasing the number of soundings.

Having now indicated in general terms the conditions which are likely to be encountered in the driving of the proposed tunnel, it will be well to sum up briefly the conclusions which have been forced upon me, by a careful review of all the evidence that I have been able to obtain. These conclusions are as follows, namely: —

First. That the bed rocks to be traversed by the tunnel are, as far as their hardness and general condition are concerned, on the

whole favorable to the accomplishment of the proposed work. They seem to consist of compact materials, somewhat penetrated by fissures, but not on the whole more open in texture than the Hoosac Tunnel rocks. Very many dislocations exist, and these give rise to some slightly open fissures which may afford access to the waters from above. As far as we can judge from the evidence obtained on the main land, these openings, though numerous, are not likely to be of large sectional area.

Second. That the surface of the bed rocks is certainly exceedingly irregular in outline. The ridges and, to a certain extent, the furrows of its surface are likely to be masked by heavy boulders, so that the precise condition of the undisturbed bed rock cannot be readily determined.*

Third. That the drift materials are very untrustworthy in their nature, it being impossible to determine, save by several parallel lines of soundings, exactly what beds will be passed through in making that part of the tunnel which lies within their mass.

It is my duty to say, in closing this report, that, at best, the study of the geology of this district is beset by very great difficulties.

The rocks are very much dislocated by faults, and are penetrated by a maze of intrusive dykes. The discovery of these accidents is hindered by a great coating of drift material, and is further obstructed by having the changes which a city brings to any country impressed upon the district.

The maps and photographs submitted herewith are designed to show the general condition of the district, and the circumstances under which its rocks have taken on their principal features.

Special explanations are appended to each map and plate, which will make any further description of them quite unnecessary.

(Signed) N. S. SHALER.

May, 1877.

To ELIOT C. CLARKE,
Engineer in Charge "Improved Sewerage" Survey.

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* An examination of the quarry in Dorchester avenue, south of Mt. Vernon street, will show the nature of this difficulty. It will there be seen that it is almost impossible by the sounding rod to determine that the bed rock has been found.

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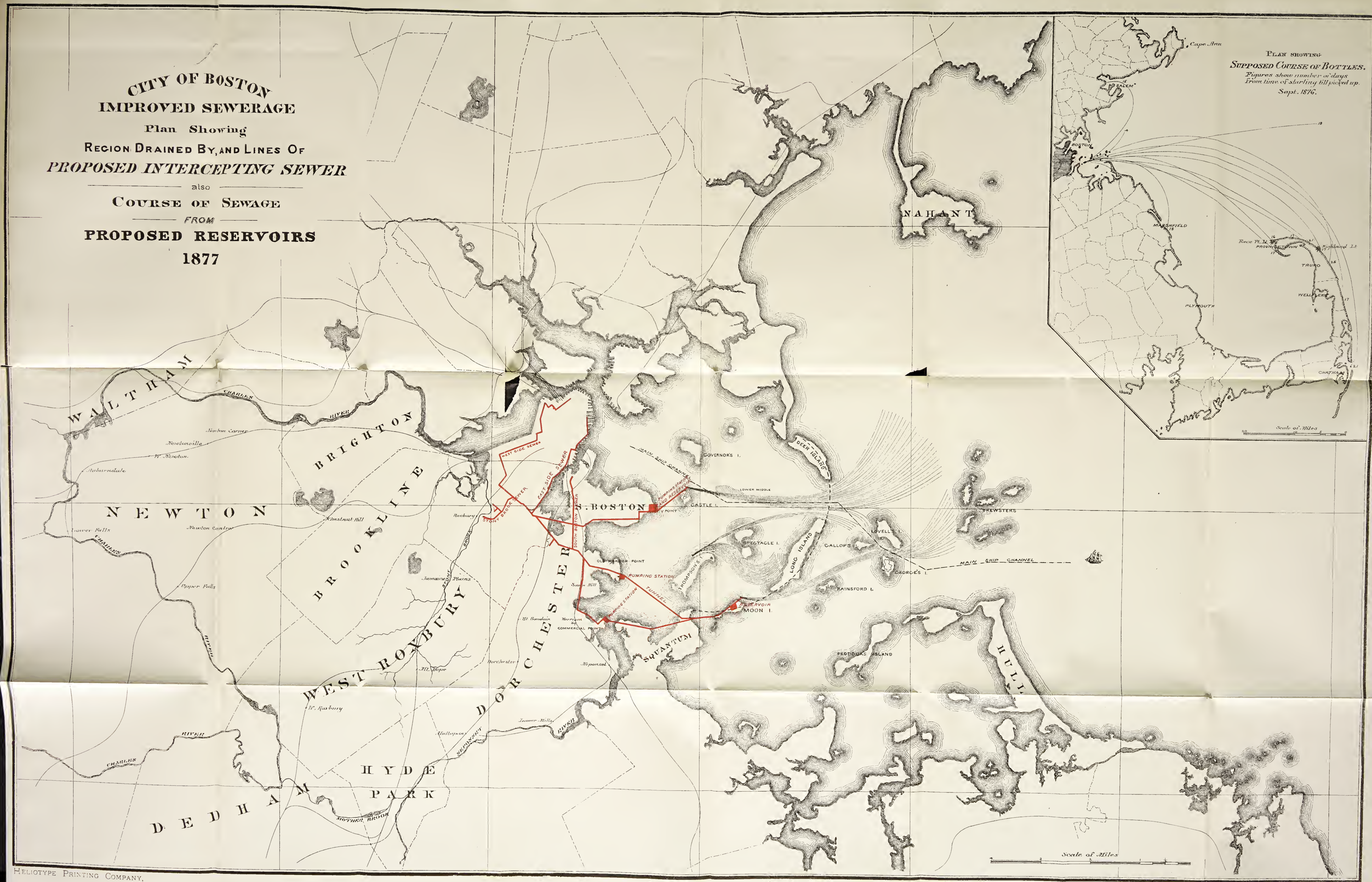

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CITY OF BOSTON

IMPROVED SEWERAGE.

PLAN

SHOWING LOCATION OF MAIN AND SECONDARY INTERCEPTING SEWERS.

SCALE.

1000' 0 1 2 3 4000'

PROPOSED INTERCEPTING SEWERS.

PRESENT SEWER OUTLETS.

CITY OF BOSTON.

City Document No. 71.

METROPOLITAN RAILBOAD. — FORTY-NINTH LOCATION.

In Board of Aldermen, July 16, 1877.

The Committee on Paving, to whom was recommitted the petition of the Metropolitan Railroad Company for leave to construct an additional track on Marlborough street, respectfully recommend the passage of the accompanying order of location.

For the Committee,

R. W. ROBINSON,
Chairman.

Ordered, That, in addition to the rights heretofore granted to the Metropolitan Railroad Company to lay down tracks in several of the streets of the City of Boston, said company shall have the right to lay down an additional track on Marlborough street, so as to form a double track on said street from Clarendon street to West Chester Park; also to lay down curved tracks to connect the stables of said company on Marlborough street, near Parker street, with said double track; the tracks located by this order being shown on a plan drawn by H. A. Case, civil engineer, dated June 17, 1877, and deposited in the office of the Superintendent of Streets. The right to lay down the track located by this order is upon the condition that the whole work of laying down the same and the form of rail to be used shall be under the direction and to the satisfaction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them; also upon the condition that the space occupied by said double tracks, and eighteen inches outside thereof, shall be paved with small granite blocks to the satisfaction of the Superintendent of Streets; also upon the condition that the said Metropolitan Railroad Company

shall accept this order of location, and shall agree, in writing, to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of the date of its passage, otherwise it shall be null and void.

Read twice and passed.

S. F. McCLEARY, *City Clerk.*

CITY OF BOSTON.

City Document No. 72.

MIDDLESEX RAILROAD. — SIXTEENTH LOCATION.

In Board of Aldermen, July 16, 1877.

The Committee on Paving, to whom was recommitted the petition of the Middlesex Railroad Company for leave to construct a turnout track on Malden bridge, respectfully recommend the passage of the accompanying order of location.

For the Committee,
R. W. ROBINSON,
Chairman.

Ordered, That, in addition to the rights heretofore granted to the Middlesex Railroad Company to lay down tracks in several of the streets of the City of Boston, said company shall have the right to construct a turnout track, not exceeding two hundred feet in length, on Alford street, Charlestown, near the northerly end of Malden bridge, said track being shown on a plan drawn by Barbour & Hodges, civil engineers, dated July 7, 1877, and deposited in the office of the Superintendent of Streets. The right to lay down the track located by this order is upon the condition that the whole work of laying down the same and the form of rail to be used shall be under the direction and to the satisfaction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them; also upon the condition that the space occupied by said track, and eighteen inches outside thereof, and the space between said turnout track and the main track, shall be paved with small granite blocks to the satisfaction of the Superintendent of Streets; also upon the condition that the said Middlesex Railroad Company shall accept this order of location, and shall agree, in writing, to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of the date of its passage, otherwise it shall be null and void.

Read twice and passed.

S. F. McCLEARY, *City Clerk.*

CITY OF BOSTON.

City Document No. 73.

AN ORDINANCE CONCERNING TAX TITLES.

Be it ordained, etc.: —

Section 1. Any purchaser of real estate at a sale made by the City Collector for the non-payment of taxes or other assessments thereon, who claims that he is entitled to have the consideration paid by him for the Collector's deed with the interest thereon refunded to him, by reason of error, omission, or informality in the proceedings of assessment or sales, may apply by petition to the Committee on Claims to have such consideration and interest paid to him; and if said committee shall determine that the petitioner is legally entitled to such payment, they shall certify the fact to the Treasurer, who shall make payment accordingly upon the surrender and discharge by the petitioner of his said deed.

Sect. 2. Whenever the city shall hold a title to any real estate sold by the Collector for the non-payment of taxes or other assessments thereon, and any person having an interest in such real estate shall allege that there was error, omission, or informality in the proceedings of assessment, or sale, so that he is legally entitled to have the title of the city to such real estate relinquished to him, he may apply therefor by petition to the Committee on Claims, and said committee may determine that such title shall be relinquished upon such terms and conditions as they shall adjudge to be just and conformable to law; and, upon the certificate of said committee to the Mayor that such title ought to be relinquished, he shall execute a proper deed of release to the petitioner in behalf of the city.

In Common Council, July 19, 1877.

Passed.

BENJAMIN POPE,
President.

In Board of Aldermen, July 23, 1877.

Passed.

JOHN T. CLARK,
Chairman.

Approved July 24, 1877.

FREDERICK O. PRINCE,
Mayor.

CITY OF BOSTON.

City Document No. 74.

ORDERS TAKING LAND FOR THE CONSTRUCTION OF THE MYSTIC VALLEY SEWER, 1877.

BOSTON WATER BOARD OFFICE, July 26, 1877.

To the City Council of Boston: —

In compliance with the order of the City Council of February 15, 1876, which authorized the Mystic Water Board to construct the Mystic Valley Sewer, and to purchase any lands necessary therefor, and under which order the said Board was instructed, in case it shall be found necessary, to take any lands, real estate, or water-rights, otherwise than by purchase, for any of the purposes named in Section 2 of the 202d Chapter of the Acts of 1875, to prepare the necessary descriptions and orders for such taking, and to submit the same to the City Council, the Boston Water Board have prepared such descriptions and order, and herewith respectfully submit the same.

BOSTON WATER BOARD,
By TIMOTHY T. SAWYER,
Chairman.

CITY OF BOSTON.

IN COMMON COUNCIL, July 26, 1877.

Ordered, That under the power and authority given to the city by the Act of the Legislature of the Commonwealth of Massachusetts, passed May 10, 1875, entitled "An Act to authorize the City of Boston to construct a sewer in the Mystic Valley," accepted by the City Council July 12, 1875, and amended by the 11th Chapter of the Acts of the year 1877, and in part execution of such power and authority, and for the purposes set forth in the first-named Act, the City of Boston has taken and does hereby take the following-

described several parcels of land situated in the towns of Medford, Winchester, and Woburn, in the County of Middlesex, for the use and behoof of said city and its successors, namely: —

A tract of land in the towns of Medford and Winchester, belonging to the heirs of Gorham Brooks, described as follows: bounded by a line beginning at a point on the low-water line of Lower Mystic Lake, 8.25 feet northerly from the Mystic Valley Sewer line; thence running N. 70° 32′ E. parallel with and 8.25 feet from the Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 67 feet; thence northerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 306.09 feet; thence N. 3° 42′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 250.24 feet; thence N. 0° 20′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 251.97 feet; thence N. 23° 23′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 259.8 feet; thence N. 3° 1′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 246.94 feet; thence N. 18° 43′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line by land of said heirs of Gorham Brooks, about 93.87 feet; thence northerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 144.67 feet; thence N. 43° 19′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, 128.83 feet; thence northerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 91.79 feet; thence N. 6° 12′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 199.96 feet; thence N. 10° 15′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 222.75 feet; thence N. 24° 48′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 163.96 feet; thence northerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 18 feet, to the boundary line between the towns of Medford and Winchester; thence on a curve northerly parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about

164 feet; thence N. 31° 11′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 5.9 feet; thence N. 43° 40′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 249.65 feet; thence N. 26° 26′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 233.75 feet; thence north-easterly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 72.49 feet; thence N. 80° 50′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks to land of Boston, Lowell, & Nashua Railroad Corporation, about 7.5 feet; thence S. 22° 18′ W. by said land of Boston, Lowell, & Nashua Railroad Corporation, across said Mystic Valley Sewer line, about 20 feet; thence southerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 55 feet; thence S. 26° 26′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 236.25 feet; thence S. 43° 40′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 250.35 feet; thence S. 31° 11′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 4.1 feet; thence southerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Gorham Brooks, about 148 feet to the boundary line between the towns of Medford and Winchester; thence southerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 18 feet; thence S. 24° 48′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 166.04 feet; thence S. 10° 15′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 227.25 feet; thence S. 6° 12′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 202.38 feet; thence southerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 101.91 feet; thence S. 43° 19′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 128.83 feet; thence southerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 127.38 feet; thence S. 18° 43′ W.

parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 96.13 feet; thence S. 3° 1′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 253.06 feet; thence S. 23° 23′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 260.2 feet; thence S. 0° 20′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 248.03 feet; thence S. 3° 42′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 249.76 feet; thence southerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 327.47 feet; thence S. 70° 32′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 67 feet to said low-water line of said Lower Mystic Lake; thence N. 19° 28′ W. by said low-water line, across the said Mystic Valley Sewer line, 16.5 feet to the point of beginning; said parcel containing about 52,375 square feet.

A parcel of land in the town of Winchester, belonging to Charles N. Bacon, described as follows: bounded by a line beginning at a point on the easterly side of the location of the Boston, Lowell, & Nashua Railroad at the boundary line between land of Charles N. Bacon and land of said Boston, Lowell, & Nashua Railroad Corporation; thence running S. 31° 14′ E. by land of said Boston, Lowell, & Nashua Railroad Corporation, about 2.5 feet; thence running N. 53° 05′ E. parallel with and 8.25 feet from the Mystic Valley Sewer line, by land of said Charles N. Bacon, about 160 feet; thence N. 31° 15′ W. by land of said Boston, Lowell, & Nashua Railroad Corporation across said Mystic Valley Sewer line, about 16.64 feet; thence S. 51° 5′ W. by land of said Boston, Lowell, & Nashua Railroad Corporation about 130 feet; thence S. 36° 12′ W. by land of said Boston, Lowell, & Nashua Railroad Corporation, across said Mystic Valley Sewer line, about 33 feet, to the point of beginning; said parcel of land containing about 2,063 square feet.

A tract of land in the town of Winchester, belonging to various persons, described as follows: bounded by a line beginning at a point on the southerly line of "Bacon's private way," so called, about 73.5 feet south-easterly from land of Boston, Lowell, & Nashua Railroad Corporation; thence running N. 38° 15′ E. parallel with and 8.25 feet from the Mystic Valley Sewer line, about 503.97 feet, crossing "Bacon's private way," so called, and bounded by lands of

Samuel G. Allen, of John G. Flagg, Jr., and Mrs. Mary Fidler jointly, of John G. Flagg, Jr., of Mrs. Mary Fidler, to a point on the easterly line of the location of the Boston, Lowell, & Nashua Railroad; thence N. 41° 17′ E. on said location line about 73.6 feet; thence N. 39° 28′ E. on said location line about 100 feet; thence S. 71° 48′ E. on said location line across said Mystic Valley Sewer line, about 10.32 feet, to a point at the intersection of the division line between land of G. H. Chapman and land of Mrs. Mary Fidler, and the said easterly line of the location of the Boston, Lowell, & Nashua Railroad; thence S. 14° 36′ E. on said division line about 1 foot; thence S. 38° 15′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, about 686.37 feet, crossing "Bacon's private way," so called, and bounded by lands of Mrs. Mary Fidler, of John G. Flagg, Jr., of Mrs. Mary Fidler and John G. Flagg, Jr., jointly, and of Samuel G. Allen, to the said southerly line of "Bacon's private way"; thence N. 31° 23′ W. on said southerly line across said Mystic Valley Sewer line, about 17.6 feet, to the point of beginning; said parcel containing about 10,618 square feet.

A parcel of land in the town of Winchester, belonging to the heirs of Marshall Symmes, described as follows: bounded by a line beginning at a point on the northerly line of Bacon street 53.8 feet from the centre line of the location of the Boston, Lowell, & Nashua Railroad; thence running S. 49° 33′ E. on said northerly line of Bacon street across the Mystic Valley Sewer line, about 10.37 feet; thence N. 35° 24′ E. parallel with and 8.25 feet from the Mystic Valley Sewer line by land of said heirs of Marshall Symmes, about 80.39 feet; thence N. 19° .07′ E. parallel with, and 8.25 feet from, the Mystic Valley Sewer line, by land of said heirs of Marshall Symmes, about 191.51 feet, to the land of the said Boston, Lowell, & Nashua Railroad Corporation; thence S. 26° .06′ W. by land of said Boston, Lowell, & Nashua Railroad Corporation, across said Mystic Valley Sewer line, about 266.95 feet, to the point of beginning; said parcel of land containing about 3,528 square feet.

A parcel of land in the town of Winchester, belonging to P. Waldmyer *et als.*, described as follows: bounded by a line beginning at a point in the boundary line between land of P. Waldmyer *et als.*, and land of Boston, Lowell, & Nashua Railroad Corporation, about 0.85 feet easterly from the Mystic Valley Sewer line; thence running N. 26° .03′ E. on the boundary line between land of P. Waldmyer *et als.*, and land of said Boston, Lowell, & Nashua Railroad Corporation, about 419.5 feet; thence S. 63° 57′ E. on said boundary line across said Mystic Valley Sewer line, about

7.4 feet; thence S. 26° 3′ W. by land of said P. Waldmyer *et als.*, parallel with and 7.4 feet from first-mentioned boundary line, about 422.28 feet; thence N. 84° 32′ W. by land of said Boston, Lowell, & Nashua Railroad Corporation, about 7.9 feet, to the point of beginning; said parcel containing about 3,115 square feet.

A parcel of land in the town of Winchester, belonging to J. W. Taylor, described as follows: bounded by a line beginning at a point on the easterly line of Main street about 19.67 feet northerly from the boundary line between land of Hubert Brodeur and land of said J. W. Taylor; thence N. 49° 10′ E. parallel with and 8 25 feet from the Mystic Valley Sewer line, by land of said J. W. Taylor, about 51.27 feet, to the westerly line of a street leading from Main street; thence N. 42° 3′ W. on said westerly line of street, across said Mystic Valley Sewer line, about 16.5 feet; thence S. 49° 10′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of J. W. Taylor, about 38.04 feet to said easterly line of Main street; thence S. 0° 40′ E. on said easterly line of Main street, across said Mystic Valley Sewer line, 21.45 feet, to the point of beginning; said parcel containing about 737 square feet.

A parcel of land in the town of Winchester, belonging to Hubert Brodeur, described as follows: bounded by a line beginning at a point on the easterly line of a street leading from Main street, distant 8.25 feet northerly from the Mystic Valley Sewer line; thence N. 49° 10′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of Hubert Brodeur, about 106.78 feet, to the westerly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence S. 59° 53′ E. on said location line, across said Mystic Valley Sewer line, about 17.8 feet; thence S. 49° 10′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Hubert Brodeur, about 100.75 feet, to said easterly line of street; thence N. 42° 3′ W. on said easterly line of street, about 16.5 feet, to the point of beginning; said parcel containing about 1,712 square feet.

A parcel of land in the town of Winchester, belonging to Alexander Moseley, described as follows: bounded by a line beginning at a point 8.25 feet north of a branch sewer line from the Mystic Valley Sewer line on the easterly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence running N. 56° 12′ E. parallel with and 8.25 feet from said branch sewer line by land of said Alexander Moseley, about 121 feet; thence N. 27° 39′ E. parallel with and 8.25 feet from said branch sewer line

by land of said Alexander Moseley, about 340.4 feet; thence S. 62° 21′ E. by land of said Alexander Moseley across said branch sewer line, about 16.5 feet; thence S. 27° 39′ W. parallel with and 8.25 feet from said branch sewer line by land of said Alexander Moseley, about 344.6 feet; thence S. 56° 12′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Alexander Moseley about 125.3 feet, to said easterly line of the location of the Woburn Branch Railroad; thence N. 21° 2′ W. on said easterly line of the location of the Woburn Branch Railroad across said branch sewer line, about 16.8 feet, to the point of beginning; said parcel containing about 7,684 square feet.

A parcel of land in the town of Woburn, belonging to Lewis Shaw and Henry Taylor, described as follows: bounded by a line beginning at a point 8.25 feet north of a branch sewer line from the Mystic Valley Sewer line, on the easterly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence running N. 89° 27′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Shaw and Taylor, about 250.4 feet; thence south-easterly, on a curve parallel with and 8.25 feet from said branch sewer line, by land of said Shaw and Taylor, about 56.6 feet; thence S. 13° 43′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Shaw and Taylor, about 100 feet; thence S. 76° 17′ W. by land of said Shaw and Taylor, across said branch sewer line, about 16.5 feet; thence N. 13° 43′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Shaw and Taylor, about 100 feet; thence north-westerly on a curve parallel with and 8.25 feet from said branch sewer line, by land of said Shaw and Taylor, about 34 feet; thence S. 89° 27′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Shaw and Taylor, about 247.8 feet, to said easterly line of the location of the Woburn Branch Railroad; thence N. 9° 33′ W. on said easterly line of the location of the Woburn Branch Railroad, across said branch sewer line, about 16.8 feet, to the point of beginning; said parcel containing about 6,507 square feet.

A parcel of land in the town of Woburn, belonging to J. P. Crane *et als.*, described as follows: bounded by a line beginning at a point 8.25 feet north-east from a branch sewer line from the Mystic Valley Sewer line, on the westerly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence S. 9° 33′ E. across said branch sewer line on the westerly line of the location of said Woburn Branch Railroad, about 37.2 feet; thence N. 35° 58′ W. parallel with and 8.25 feet from said branch sewer line, by

the north-east corner of a building and land of said Crane *et als.*, about 118.3 feet; thence N. 54° .02′ E. by land of said Crane *et als.*, 16.5 feet; thence S. 35° 58′ E. parallel, with and 8.25 feet from said branch sewer line by land of said Crane *et als.*, about 85.0 feet, to the point of beginning; said parcel containing about 1,676 square feet.

A parcel of land in Woburn, belonging to Charles B. Bryant and Theophilus King, Jr., described as follows: bounded by a line beginning at a point 8.25 feet north of a branch sewer line from the Mystic Valley Sewer line on the easterly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence running N. 67° 40′ E. parallel with and 8.25 feet from said branch sewer line by land of said Bryant and King, about 206.93 feet; thence S. 22° 20′ E. by land of said Bryant and King, across said branch sewer line, about 16.5 feet; thence S. 67° 40′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Bryant and King, about 210.67 feet, to the said easterly line of the location of the Woburn Branch Railroad; thence N. 9° 33′ W. on said easterly line of the location of the Woburn Branch Railroad, across said branch sewer line, about 16.92 feet, to the point of beginning; said parcel containing about 3,445 square feet.

A parcel of land in the town of Woburn, belonging to Eustis Cummings, described as follows: bounded by a line beginning at a point 8.25 feet north of a branch sewer line from the Mystic Valley Sewer line, on the easterly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence S. 9° 33′ E., across said branch sewer line on the easterly line of said Woburn Branch Railroad location, about 16.5 feet; thence N. 80° .02′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Cummings, about 65.24 feet; thence S. 75° 56′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Cummings, about 180.47 feet; thence N. 78° 43′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Cummings, about 42.10 feet; thence N. 11° 17′ W., by land of said Cummings, about 16.5 feet, to the southwest corner of a building; thence S. 78° 43′ W. parallel with and 8.25 feet from said branch sewer line, by the south line of said building, about 38.38 feet; thence N. 75° 56′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Cummings, about 180.27 feet, to a point on the southerly side of a building; thence S. 80° .02 ′W. parallel with and 8.25 feet from said branch sewer line on southerly line of said building and by land of said Cummings, about

68.76 feet, to the point of beginning; said parcel of land containing about 5,091 square feet.

A parcel of land in the town of Woburn, belonging to E. N. Blake, described as follows: bounded by a line beginning at a point about 8.25 feet south from a branch sewer line from the Mystic Valley Sewer line, on the westerly side of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence N. 9° 33′ W. across said branch sewer line on the westerly side of said location of the Woburn Branch Railroad, about 16.5 feet; thence S. 80° 41′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Blake, about 130.13 feet; thence S. 0° 49′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Blake, about 58 feet; thence S. 89° 11′ E. by land of said Blake, 16.5 feet; thence N. 0° 49′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Blake, about 46 feet; thence N. 80° 41′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Blake, about 118.24 feet, to the point of beginning; said parcel containing about 2,907 square feet.

A parcel of land in the town of Woburn, belonging to Francis L. White, John B. Osborn, and others, described as follows: bounded by a line beginning at a point about 8.25 feet north of a branch sewer line from the Mystic Valley Sewer line, on the easterly side of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence S. 9° 33′ E. across said branch sewer line on the easterly line of the said location of the Woburn Branch Railroad, about 16.5 feet; thence N. 84° 18′ E. parallel with and 8.25 feet from said branch sewer line, by land of Thomas Richardson, about 87.16 feet; thence S. 79° 27′ E. parallel with and 8.25 feet from said branch sewer line, by land of said White, Osborn, *et als.*, about 84.7 feet; thence N. 85° E. parallel with and 8.25 feet from said branch sewer line, by land of said White, Osborn, *et als.*, about 47.20 feet; thence N. 5° W. by land of said White, Osborn, *et als.*, about 16.5 feet, to the south-east corner of a building belonging to said White, Osborn, *et als.*; thence S. 85° W. parallel with and 8.25 feet, from said branch sewer line, on the southerly line of said building, about 44.8 feet, to the south-west corner of said building; thence N. 79° 27′ W. parallel with and 8.25 feet from said branch sewer line, by land of said White, Osborn, *et als.*, about 84.6 feet; thence S. 84° 18′ W. parallel with and 8.25 feet from said branch sewer line, by land of said White, Osborn, *et als.*, about 92 feet to the point of beginning; said parcel of land containing about 3,633 square feet.

A parcel of land in the town of Woburn, belonging to James Houston *et als.*, described as follows: bounded by a line beginning at a point 8.25 feet north of a branch sewer line from the Mystic Valley Sewer line, on the easterly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence S. 9° 33′ E. across said branch sewer line on said branch railroad, about 16.55 feet; thence N. 84° 53′ E. parallel with and 8.25 feet from said branch sewer line, by land of said James Houston *et als.*, about 185.76 feet; thence N. 5° 7′ W. by land of said James Houston *et als.*, 16.5 feet; thence S. 84° 53′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Houston *et als.*, about 187.04 feet, to the point of beginning; said parcel containing about 3,076 square feet.

A parcel of land in the town of Woburn, belonging to James Skinner *et als.*, described as follows: bounded by a line beginning at a point on the northerly side of Green street, 8.25 feet, south-east of a branch sewer line from the Mystic Valley Sewer line; thence N. 89° 30′ W. across said branch line on said northerly side of Green street, about 24.62 feet; thence N. 48° 25′ E. parallel with and 8.25 feet from said branch line, by land of said Skinner *et als.*, about 166.1 feet; thence N. 80° 34′ E. on the southerly line of Skinner *et als.* tannery, about 15.5 feet, to the south-east corner of said tannery; thence S. 41° 35′ E. by land of said Skinner *et als.*, about 8.25 feet; thence S. 48° 25′ W. parallel with and 8.25 feet from said branch line, by land of said Skinner *et als.*, about 160.94 feet, to the point of beginning; said parcel containing about 2,752 square feet.

A parcel of land in the town of Woburn, belonging to James Skinner *et als.*, described as follows: bounded by a line beginning at the intersection of the northerly line of Green street with the easterly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence N. 9° 33′ W. across the Mystic Valley Sewer line, on the easterly line of the said Woburn Branch Railroad location, about 179 feet; thence N. 7° 29′ E. still on said Woburn Branch Railroad location, about 79.5 feet; thence N. 80° 27′ E. across said Mystic Valley Sewer line, by land of said James Skinner *et als.*, about 8.6 feet; thence S. 7° 29′ W. parallel with and 8.25 feet from the Mystic Valley Sewer line, by land of said James Skinner *et als.*, about 41.5 feet; thence S. 4° 4′ E. by land of said James Skinner *et als.*, about 215 feet, to the point of beginning; said parcel containing about 2,236 square feet.

A tract of land in the town of Woburn, belonging to various persons, described as follows: bounded by a line

beginning at a point on the easterly side of Prospect street, 8.25 feet south of the Mystic Valley Sewer line; thence N. 10° 49′ W. across said Mystic Valley Sewer line, on the easterly side of said Prospect street, about 16.5 feet; thence N. 77° 28′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of J. C. Whitcher, about 205.09 feet; thence north-easterly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Whitcher, about 40.67 feet; thence north-westerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of Jos. B. McDonald, about 18.05 feet; thence N. 22° 25′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said McDonald, about 239.06 feet; thence N. 21° 33′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said McDonald, about 124.37 feet; thence north-westerly across High street to a point on the northerly line of said High street, about 8.25 feet west from the Mystic Valley Sewer line; thence N. 17° 35′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of Samuel W. Russell, about 366.09 feet; thence N. 17° 35′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of Curtis Greenwood, about 94.77 feet; thence N. 64° 23′ E. across said Mystic Valley Sewer line, on the southerly line of Railroad street, about 16.66 feet; thence S. 17° 35′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of Curtis Greenwood, about 149.64 feet; thence S. 17° 35′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of Samuel W. Russell, about 312.22 feet; thence south-easterly across High street, to a point in the southerly line of said High street, about 8.25 feet east from said Mystic Valley Sewer line; thence S. 21° 33′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of Jos. B. McDonald, about 124.43 feet; thence S. 22° 25′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said McDonald, about 238.94 feet; thence south-easterly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said McDonald, about 20.82 feet; thence southerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of J. C. Whitcher, about 24.87 feet; thence N. 77° 28′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Whitcher, about 12.8 feet; thence N. 77° 16′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Whitcher, about 218.20 feet; thence N. 77° 16′ E. parallel with and 8.25 feet from said Mystic Valley

Sewer line, by land of L. M. Fowle, about 302.28 feet; thence N. 56° 12′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Fowle, about 91.58 feet; thence N. 56° 12′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, across East street, about 40.66 feet; thence N. 56° 12′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of S. O. Pollard, about 117.57 feet; thence N. 76° 51′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Pollard, about 194.74 feet; thence N. 76° 51′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of L. H. Allen and Luke W. Fowle, about 56.10 feet; thence N. 56° 52′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Allen and Fowle, about 285.55 feet; thence S. 33° .08′ E. across said Mystic Valley Sewer line, by land of said Allen and Fowle, 16.5 feet; thence S. 56° 52′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Allen and Fowle, about 288.45 feet; thence S. 76° 51′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, about 250.74 feet, bounded by land of said Allen and Fowle, and of S. O. Pollard; thence S. 56° 12′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, crossing East street, about 249.87 feet, bounded by land of S. O. Pollard, and land of L. W. Fowle; thence S. 77° 16′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, about 523.54 feet, bounded by land of L. W. Fowle, and land of J. C. Whitcher; thence S. 77° 28′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said J. C. Whitcher, about 255.58 feet, to the point of beginning; said tract of land containing 152,750 square feet, more or less.

The above-described tract of land includes various parcels, as hereinafter described, which are supposed to belong to different persons, as named in the descriptions.

A parcel of land in the towns of Medford and Winchester, belonging to the heirs of Gorham Brooks, described as follows: bounded by a line beginning at a point on the low-water line of Lower Mystic Lake, 8.25 feet, northerly from the Mystic Valley Sewer line; thence running N. 7° 32′ E. parallel with and 8.25 feet from the Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 67 feet; thence northerly, on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 306.09 feet; thence N. 3° 42′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 250.24

feet; thence N. 0° 20′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 251.97 feet; thence N. 23° 23′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 259.80 feet; thence N. 3° .01′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 246.94 feet; thence N. 18° 43′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 93.87 feet; thence northerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 144.67 feet; thence N. 43° 19′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, 128.83 feet; thence northerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 91.79 feet; thence N. 6° 12′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 199.96 feet; thence N. 10° 15′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 222.75 feet; thence N. 24° 48′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 163.96 feet; thence northerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 182.71 feet; thence N. 31° 11′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 5.9 feet; thence N. 43° 40′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 249.65 feet; thence N. 26° 26′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 233.75 feet; thence north-easterly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 72.49 feet; thence N. 80° 50′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, to land of Boston, Lowell, & Nashua Railroad Corporation, about 7.5 feet; thence S. 22° 18′ W. by said land of Boston, Lowell, & Nashua Railroad Corporation, across said Mystic Valley Sewer line, about 20 feet; thence southerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 55 feet; thence S. 26° 26′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham

Brooks, about 236.25 feet; thence S. 43° 40′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 250.35 feet; thence S. 31° 11′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 4.1 feet; thence southerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 166.58 feet; thence S. 24° 48′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 166.04 feet; thence S. 10° 15′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 227.25 feet; thence S. 6° 12′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 202.38 feet; thence southerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 101.91 feet; thence S. 43° 19′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 128.83 feet; thence southerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 127.38 feet; thence S. 18° 43′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 96.13 feet; thence S. 3° .01′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 253.06 feet; thence S. 23° 23′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 260.20 feet; thence S. 0° 20′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 248.03 feet; thence S. 3° 42′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 249.76 feet; thence southerly on a curve parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 327.47 feet; thence S. 7° 32′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said heirs of Gorham Brooks, about 67 feet to said low-water line of said Lower Mystic Lake; thence N. 19° 28′ W. by said low-water line, across the said Mystic Valley Sewer line, 16.5 feet to the point of beginning; said parcel of land containing about 52,375 square feet.

A parcel of land in the town of Winchester, belonging to Charles N. Bacon, described as follows: bounded by a line beginning at a point on the easterly side of the location of

the Boston, Lowell, & Nashua Railroad at the boundary line between land of Charles N. Bacon and land of said Boston, Lowell, & Nashua Railroad Corporation; thence running S. 31° 14′ E. by land of said Boston, Lowell, & Nashua Railroad Corporation about 2.5 feet; thence running N. 53° .05′ parallel with and 8.25 feet from the Mystic Valley Sewer line, by land of said Charles N. Bacon, about 160 feet; thence N. 31° 15′ W. by land of said Boston, Lowell, & Nashua Railroad Corporation, across said Mystic Valley Sewer line, about 16.64 feet; thence S. 51° .05′ W. by land of said Boston, Lowell, & Nashua Railroad Corporation, about 130 feet; thence S. 36° 12′ W. by land of said Boston, Lowell & Nashua Railroad Corporation, across said Mystic Valley Sewer line, about 33 feet, to the point of beginning; said parcel of land containing about 2,063 square feet.

A parcel of land in the town of Winchester, belonging to party or parties unknown, described as follows: bounded by a line beginning at a point on the southerly line of "Bacon's private way," so called, about 73.5 feet southeasterly from land of Boston, Lowell, & Nashua Railroad Corporation; thence running N. 38° 15′ E. parallel with and 8.25 feet from the Mystic Valley Sewer line, about 59.5 feet; thence S. 31° 23′ E. on the northerly line of said "Bacon's private way," across said Mystic Valley Sewer line, about 17.6 feet; thence S. 38° 15′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, about 59.5 feet; thence N. 31° 23′ W. on the southerly line of said "Bacon's private way," across said Mystic Valley Sewer line, about 17.6 feet, to the point of beginning; said parcel containing about 982 square feet.

A parcel of land in the town of Winchester, belonging to Samuel G. Allen, described as follows: bounded by a line beginning at a point on the northerly line of "Bacon's private way," so called, about 79.7 feet from the easterly line of the location of the Boston, Lowell, & Nashua Railroad; thence running N. 38° 15′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Samuel G. Allen, about 25.34 feet, to the easterly line of a right of way leading to land of Mrs. Mary Fidler; thence N. 51° 19′ E. on said easterly line across said Mystic Valley Sewer line, about 72.94 feet; thence S. 38° 15′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Samuel G. Allen, about 102.51 feet, to said northerly line of "Bacon's private way;" thence N. 31° 23′ W. on said northerly line across said Mystic Valley Sewer line, about 17.60 feet, to the point of beginning; said parcel containing about 1,055 square feet.

A parcel of land in the town of Winchester, belonging jointly to Mrs. Mary Fidler and John G. Flagg, Jr., described as follows: bounded by a line beginning at a point on the boundary line between land of Samuel G. Allen and said land of Mrs. Mary Fidler and John G. Flagg, Jr., about 24.37 feet northerly on said boundary line from the northerly line of "Bacon's private way," so called, and 8.25 feet from the Mystic Valley Sewer line; thence running N. 38° 15′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Mrs. Mary Fidler and John G. Flagg, Jr., about 66.3 feet; thence N. 51° 19′ E. by land of said John G. Flagg, Jr., across said Mystic Valley Sewer line, about 72.94 feet; thence S. 38° 15′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Mrs. Mary Fidler and John G. Flagg, Jr., about 66.3 feet; thence S. 51° 19′ W. by land of Samuel G. Allen, across said Mystic Valley Sewer line, about 72.94 feet, to the point of beginning; said parcel containing about 1,094 square feet.

A parcel of land in the town of Winchester, belonging to John G. Flagg, Jr., described as follows: bounded by a line beginning at a point on the boundary line between land of said John G. Flagg, Jr., and land owned jointly by Mrs. Mary Fidler and John G. Flagg, Jr., about 86 feet northerly from the northerly line of "Bacon's private way," so called, and 8.25 feet from the Mystic Valley Sewer line; thence running N. 38° 15′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said John G. Flagg, Jr., about 323.6 feet, to a point on the boundary line between land of said John G. Flagg, Jr., and land of said Mrs. Mary Fidler; thence S. 38° 31′ E. by land of said Mrs. Mary Fidler, across said Mystic Valley Sewer line, about 16.94 feet; thence S. 38° 15′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said John G. Flagg, Jr., about 248.6 feet; thence S. 51° 19′ W. by land owned jointly by said Mrs. Mary Fidler and John G. Flagg, Jr., across said Mystic Valley Sewer line, about 72.94 feet, to the point of beginning; said parcel containing about 4,721 square feet.

A parcel of land in the town of Winchester, belonging to Mrs. Mary Fidler, described as follows: bounded by a line beginning at a point on the boundary line between land of John G. Flagg, Jr., and land of said Mrs. Mary Fidler, about 1.58 feet south-easterly from land of Boston, Lowell, & Nashua Railroad Corporation; thence running N. 38° 15′ E. by land of said Mrs. Mary Fidler, about 29.23 feet, to the boundary line between land of said Mrs. Mary Fidler

and land of said Boston, Lowell, & Nashua Railroad Corporation; thence N. 41° 17′ E. on said boundary line, about 73.6 feet; thence N. 39° 28′ E. on said boundary line about 100 feet; thence S. 71° 46′ E. on said boundary line, across said Mystic Valley Sewer line, about 10.32 feet; thence S. 14° 36′ E. by land of G. H. Chapman, Jr., about 1 foot; thence S. 38° 15′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Mrs. Mary Fidler, about 209.46 feet, to said boundary line between land of Mrs. Mary Fidler and John G. Flagg, Jr.; thence N. 38° 31′ W. on said boundary line, across said Mystic Valley Sewer line, about 16.94 feet, to the point of beginning; said parcel containing about 2,766 square feet.

A parcel of land in the town of Winchester, belonging to the heirs of Marshall Symmes, described as follows: bounded by a line beginning at a point on the northerly line of Bacon street, 53.8 feet from the centre line of the location of the Boston, Lowell, & Nashua Railroad; thence running S. 49° 33′ E. on said northerly line of Bacon street, across the Mystic Valley Sewer line, about 10.37 feet; thence N. 35° 24′ E. parallel with and 8.25 feet from the Mystic Valley Sewer line, by land of said heirs of Marshall Symmes, about 80.39 feet; thence N. 19° .07′ E. parallel with and 8.25 feet from the Mystic Valley Sewer line, by land of said heirs of Marshall Symmes, about 191.51 feet, to the land of said Boston, Lowell, & Nashua Railroad Corporation; thence S. 26° .06′ W. by land of said Boston, Lowell, & Nashua Railroad Corporation, across said Mystic Valley Sewer line, about 199.10 feet, to the point of beginning; said parcel of land containing about 3,528 square feet.

A parcel of land in the town of Winchester, belonging to P. Waldmyer *et als.*, described as follows: bounded by a line at a point on the boundary line between land of P. Waldmyer *et als.* and land of Boston, Lowell, & Nashua Railroad Corporation, about .85 feet easterly from the Mystic Valley Sewer line; thence running N. 26° 3′ E. on the boundary line between land of P. Waldmyer *et als.* and land of said Boston, Lowell, & Nashua Railroad Corporation, about 419.5 feet; thence S. 63° 57′ E. on said boundary line, across said Mystic Valley Sewer line, about 7.4 feet; thence S. 26° 3′ W. by land of said P. Waldmyer *et als.* parallel with and 7.4 feet from first-mentioned boundary line, about 422.28 feet; thence N. 84° 32′ W. by land of said Boston, Lowell, & Nashua Railroad Corporation, about 7.9 feet, to the point of beginning; said parcel containing about 3,115 square feet.

A parcel of land in the town of Winchester, belonging to

J. W. Taylor, described as follows: bounded by a line beginning at a point on the easterly line of Main street, about 19.67 feet northerly from the boundary line between land of Hubert Brodeur and land of said J. W. Taylor; thence N. 49° 10′ E. parallel with and 8 25 feet from the Mystic Valley Sewer line, by land of said J. W. Taylor, about 51.27 feet, to the westerly line of a street leading from Main street; thence N. 42° 3′ W. on said westerly line of street, across said Mystic Valley Sewer line, about 16.5 feet; thence S. 49° 10′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of J. W. Taylor, about 38.04 feet, to said easterly line of Main street; thence S. 0° 40′ E. on said easterly line of Main street, across said Mystic Valley Sewer line, 21.45 feet, to the point of beginning; said parcel containing about 737 square feet.

A parcel of land in the town of Winchester, belonging to Hubert Brodeur, described as follows: bounded by a line beginning at a point on the easterly line of a street leading from Main street, distant 8.25 feet northerly from the Mystic Valley Sewer line; thence N. 49° 10′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Hubert Brodeur, about 106.78 feet, to the westerly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence S. 59° 53′ E. on said location line, across said Mystic Valley Sewer line, about 17.8 feet; thence S. 49° 10′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Hubert Brodeur, about 100.75 feet, to said easterly line of street; thence N. 42° .03′ W. on said easterly line of street, about 16.5 feet, to the point of beginning; said parcel containing about 1,712 square feet.

A parcel of land in the town of Woburn, belonging to Jas. Skinner *et als.*, described as follows: bounded by a line beginning at the intersection of the northerly line of Green street with the easterly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence N. 9° 33′ W. across the Mystic Valley Sewer line on the easterly line of the said Woburn Branch Railroad location, about 179 feet; thence N. 7° 29′ E. still on said Woburn Branch Railroad location, about 79.5 feet; thence N. 80° 27′ E., across said Mystic Valley Sewer line, by land of said Jas. Skinner *et als.*, about 8.6 feet; thence S. 7° 29′ W. parallel with and 8.25 feet from the Mystic Valley Sewer line, by land of said Jas. Skinner *et als.*, about 41.5 feet; thence S. 4° 4′ E. by land of said Jas. Skinner *et als.*, about 215 feet, to the point of beginning; said parcel containing about 2,236 square feet.

A parcel of land in the town of Woburn, belonging to J.

C. Whitcher, described as follows: bounded by a line beginning at a point on the easterly line of Prospect street, 8.25 feet south-east of the Mystic Valley Sewer line; thence running N. 10° 49′ W. on said easterly side of Prospect street, across said Mystic Valley Sewer line, about 16.51 feet; thence N. 77° 28′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Whitcher, about 205.09 feet; thence north-easterly on a curved line parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Whitcher, about 40.67 feet, to land of Jos. B. McDonald; thence N. 77° 28′ E., by land of said McDonald, across said Mystic Valley Sewer line, about 17.20 feet; thence southerly on a curved line parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Whitcher, about 24.87 feet; thence N. 77° 28′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line by land of said Whitcher, about 12.8 feet; thence N. 77° 16 E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Whitcher, about 218.2 feet; thence S. 38°.05′ E. across said Mystic Valley Sewer line, by land of L. W. Fowle, about 18.26 feet; thence S. 77° 16′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Whitcher, about 226.02 feet; thence S. 77° 28′ W. parallel with and 82.5 feet from said Mystic Valley Sewer line, by land of said Whitcher, about 255.58 feet to the point of beginning; said parcel containing about 8,418 square feet.

A parcel of land in the town of Woburn, belonging to Joseph B. McDonald, described as follows: bounded by a line beginning at a point in the division line between land of said McDonald and land of J. C. Whitcher, distant 8.25 feet in a westerly direction from the Mystic Valley Sewer line; thence running N. 77° 28′ E. across said Mystic Valley Sewer line, on said division line, about 17.20 feet; thence north-westerly on a curved line parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said McDonald, about 20.82 feet; thence N. 22° 25′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said McDonald, about 238.94 feet; thence N. 21° 33′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said McDonald, about 124.43 feet; thence S. 67° 49′ W. across said Mystic Valley Sewer line, on the southerly side of High street, about 16.5 feet; thence S. 21° 33′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said McDonald, about 124.37 feet; thence S. 22° 25′ E. parallel with and 8.25 from said Mystic Valley Sewer line, by land of said McDonald, about 239.06 feet; thence south-easterly on a curved line parallel

with and 8.25 feet from said Mystic Valley Sewer line, by land of said McDonald, about 18.05 feet, to the point of beginning; said parcel containing about 6,316 square feet.

A parcel of land in the town of Woburn, belonging to Samuel W. Russell, described as follows: beginning at a point on the northerly side of High street 8.25 feet west of the Mystic Valley Sewer line; thence N. 67° 49′ E. across said Mystic Valley Sewer line, on said northerly line of High street, about 16.55 feet; thence N. 17° 35′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Russell, about 312.22 feet; thence N. 35° .01′ W., across said Mystic Valley Sewer line, by land of Curtis Greenwood, about 55.07 feet; thence S. 17° 35′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Russell, about 366.09 feet, to the point of beginning; said parcel containing about 5,574 square feet.

A parcel of land in the town of Woburn, belonging to Curtis Greenwood, described as follows: beginning at a point in the division line between land of said Greenwood and land of Samuel W. Russell, 8.25 feet west of Mystic Valley Sewer line; thence S. 35° .01′ E. across said Mystic Valley Sewer line, on said division line, about 55.07 feet; thence N. 17° 35′ W. parallel with and 8.25 from said Mystic Valley Sewer line, by land of said Greenwood, about 149.64 feet; thence S. 64° 23′ W. across said Mystic Valley Sewer line, on the southerly line of Railroad street, about 16.66 feet; thence S. 17° 35′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Greenwood, about 94.77 feet, to the point of beginning; said parcel containing about 2,016 square feet.

A parcel of land in the town of Woburn, belonging to L. W. Fowle, described as follows: bounded by a line beginning at a point on the division line between land of said Fowle and land of J. C. Whitcher 8.25 feet north of the Mystic Valley Sewer line; thence running N. 77° 16′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Fowle, about 302.28 feet; thence N. 56° 12′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Fowle, about 91.58 feet; thence S. 23° 28′ E. on the westerly line of East street, across said Mystic Valley Sewer line, about 16.78 feet; thence S. 56° 12′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Fowle, about 91.64 feet; thence S. 77° 16′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Fowle, about 297.52 feet; thence N. 38° .05′ W. by land of J. C. Whitcher, across said Mystic Valley Sewer line, about 18.26

feet, to the point of beginning; said parcel containing about 6,460 square feet.

A parcel of land in the town of Woburn, belonging to S. O. Pollard, described as follows: bounded by a line beginning at a point on the north-easterly line of East street 8.25 feet south-east of the Mystic Valley Sewer line; thence running N. 23° 28′ W. on said north-easterly line of East street, across said Mystic Valley Sewer line, about 16.78 feet; thence N. 56° 12′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Pollard, about 117.57 feet; thence N. 76° 51′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Pollard, about 194.74 feet; thence S. 6° 32′ E. across said Mystic Valley Sewer line, by land of L. H. Allen and L. W. Fowle, about 16.6 feet; thence S. 76° 51′ W. parallel with and 8.25 feet from Mystic Valley Sewer line, by land of said Pollard, about 189.82 feet; thence S. 56° 12′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Pollard, about 117.57 feet, to the point of beginning; said parcel containing about 5,112 square feet.

A parcel of land in the town of Woburn, belonging to L. H. Allen and Luke W. Fowle, described as follows: bounded by a line beginning at a point on the division line between land of said Allen and Fowle, and land of S. O. Pollard, distant 8.25 feet in a southerly direction from the Mystic Valley Sewer line; thence N. 60° 32′ W. across said Mystic Valley Sewer line, on said division line, about 16.6 feet; thence N. 76° 51′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Allen and Fowle, about 56.10 feet; thence N. 56° 52′ E. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Allen and Fowle, about 285.55 feet; thence S. 33° .08′ E. across said Mystic Valley Sewer line, by land of said Allen and Fowle, 16.5 feet; thence S. 56° 52′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Allen and Fowle, about 288.45 feet; thence S. 76° 51′ W. parallel with and 8.25 feet from said Mystic Valley Sewer line, by land of said Allen and Fowle, about 60.92 feet, to the point of beginning; said parcel containing about 5,700 square feet.

A parcel of land in the town of Winchester, belonging to Alexander Moseley, described as follows: bounded by a line beginning at a point 8.25 feet north of a branch sewer line from the Mystic Valley Sewer line, on the easterly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence running N. 56° 12′ E. parallel with and 8.25 feet from said branch sewer line, by land

of said Alexander Moseley, about 121 feet; thence N. 27° 39′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Alexander Moseley, about 340.4 feet; thence S. 62° 21′ E. by land of said Alexander Moseley, across said branch sewer line, about 16.5 feet; thence S. 27° 39′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Alexander Moseley, about 344.6 feet; thence S. 56° 12′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Alexander Moseley, about 125.3 feet, to said easterly line of the location of the Woburn Branch Railroad; thence N. 21° .02′ W. on said easterly line of the location of the Woburn Branch Railroad, across said branch sewer line, about 16.8 feet, to the point of beginning; said parcel containing about 7,684 square feet.

A parcel of land in the town of Woburn, belonging to Lewis Shaw and Henry Taylor, described as follows: bounded by a line beginning at a point 8.25 feet north of a branch sewer line, from the Mystic Valley Sewer line on the easterly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence running N. 89° 27′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Shaw and Taylor, about 250.4 feet; thence south-easterly on a curve parallel with and 8.25 feet from said branch sewer line, by land of said Shaw and Taylor, about 56.6 feet; thence S. 13° 43′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Shaw and Taylor, about 100 feet; thence S. 76° 17′ W. by land of said Shaw and Taylor, across said branch sewer line, about 16.5 feet; thence N. 13° 43′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Shaw and Taylor, about 100 feet; thence north-westerly on a curve parallel with and 8.25 feet from said branch sewer line, by land of said Shaw and Taylor, about 34 feet; thence S. 89° 27′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Shaw and Taylor, about 247.8 feet, to said easterly line of the location of the Woburn Branch Railroad; thence N. 9° 33′ W. on said easterly line of the location of the Woburn Branch Railroad, across said branch sewer line, about 16.8 feet, to the point of beginning; said parcel containing about 6,507 square feet.

A parcel of land in the town of Woburn, belonging to J. P. Crane *et als.*, described as follows: bounded by a line beginning at a point 8.25 feet north-east from a branch sewer line from the Mystic Valley Sewer line, on the westerly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence S. 9° 33′ E. across said branch sewer line, on the westerly line of the location

of said Woburn Branch Railroad, about 37.2 feet; thence N. 35° 58′ W. parallel with and 8.25 feet from said branch sewer line, by the corner of a building and land of said Crane *et als.*, about 118.3 feet; thence N. 54° .02′ E. by land of said Crane *et als.*, 16.5 feet; thence S. 35° 58′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Crane *et als.*, about 85 feet, to the point of beginning; said parcel of land containing about 1,676 square feet.

A parcel of land in Woburn, belonging to Charles B. Bryant and Theophilus King, Jr., described as follows: bounded by a line beginning at a point 8.25 feet north of a branch sewer line from the Mystic Valley Sewer line, on the easterly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence running N. 67° 40′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Bryant and King, about 206.93 feet; thence S. 22° 20′ E. by land of said Bryant and King, across said branch sewer line, about 16.5 feet; thence S. 67° 40′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Bryant and King, about 210.67 feet, to the said easterly line of the location of the Woburn Branch Railroad; thence N. 9° 33′ W. on said easterly line of the location of the Woburn Branch Railroad, across said branch sewer line, about 16.92 feet, to the point of beginning; said parcel containing about 3,445 square feet.

A parcel of land in the town of Woburn, belong to Eustis Cummings, described as follows: bounded by a line beginning at a point 8.25 feet north of a branch sewer line from the Mystic Valley Sewer line, on the easterly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence S. 9° 33′ E., across said branch sewer line on the easterly line of said Woburn Branch Railroad location, about 16.5 feet; thence N. 80° .02′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Cummings, about 65.24 feet; thence S. 75° 56′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Cummings, about 180.47 feet; thence N. 78° 43′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Cummings, about 42.10 feet; thence N. 11° 17′ W. by land of said Cummings, about 16.5 feet, to the south-east corner of a building; thence S. 78° 43′ W. parallel with and 8.25 feet from said branch sewer line, by the south line of said building, about 38.38 feet; thence N. 75° 56′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Cummings, about 180.27 feet to a point on the southerly side of a building; thence S. 80° .02′ W. parallel with and 8.25 feet from said branch sewer

line on southerly line of said building and by land of said Cummings, about 68.76 feet, to the point of beginning; said parcel of land containing about 5,091 square feet.

A parcel of land in the town of Woburn, belonging to E. N. Blake, described as follows: bounded by a line beginning at a point about 8.25 feet south from a branch sewer line from Mystic Valley Sewer line, on the westerly side of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence N. 9° 33′ W. across said branch sewer line on the westerly side of said location of the Woburn Branch Railroad, about 16.5 feet; thence S. 80° 41′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Blake, about 130.13 feet; thence S. 0° 49′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Blake, about 58 feet; thence S. 89° 11′ E. by land of said Blake, 16.5 feet; thence N. 0° 49′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Blake, about 46 feet; thence N. 80° 41′ E. parallel with and 8.25 feet from said branch sewer line, by land of said Blake, about 118.24 feet, to the point of beginning; said parcel containing about 2,907 square feet.

A parcel of land in the town of Woburn, belong to Francis L. White, John B. Osborn, and others, described as follows: bounded by a line beginning at a point about 8.25 feet north of a branch sewer line from the Mystic Valley Sewer line, on the easterly side of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence S. 9° 33′ E. across said branch sewer line, on the easterly line of the said location of the Woburn Branch Railroad, about 16.5 feet; thence N. 84° 18′ E. parallel with and 8.25 feet from said branch sewer line, by land of Thomas Richardson, about 87.16 feet; thence S. 79° 27′ E. parallel with and 8.25 feet from said branch sewer line, by land of said White, Osborn, *et als.*, about 84.7 feet; thence N. 85° E. parallel with and 8.25 feet from said branch sewer line by land of said White, Osborn, *et als.*, about 47.20 feet; thence N. 5° W. by land of said White, Osborn, *et als.*, about 16.5 feet, to the south-east corner of a building belonging to said White, Osborn, *et als.*; thence S. 85° W. parallel with and 8.25 feet from said branch sewer line, on the southerly line of said building, about 44.8 feet, to the south-west corner of said building; thence N. 79° 27′ W. parallel with and 8.25 feet from said branch sewer line, by land of said White, Osborn, *et als*, about 84.6 feet; thence S. 84° 18′ W. parallel with and 8.25 feet from said branch sewer line, by land of said

White, Osborn, *et als.*, about 92 feet, to the point of beginning; said parcel of land containing about 3,633 square feet.

A parcel of land in the town of Woburn, belonging to James Houston *et als.*, described as follows: bounded by a line beginning at a point 8.25 feet north of a branch sewer line from the Mystic Valley Sewer line, on the easterly line of the location of the Woburn Branch of the Boston, Lowell, & Nashua Railroad; thence S. 9° 33′ E. across said branch sewer line, on said easterly line of the location of the Woburn Branch Railroad, about 16.55 feet; thence N. 84° 53′ E. parallel with and 8.25 feet from said branch sewer line, by land of said James Houston *et als.*, about 185.76 feet; thence N. 5° 7′ W. by land of said Houston *et als.*, 16.5 feet; thence S. 84° 53′ W. parallel with and 8.25 feet from said branch sewer line, by land of said Houston *et als.*, about 187.04 feet, to the point of beginning; said parcel containing about 3,076 square feet.

A parcel of land in the town of Woburn, belonging to James Skinner *et als.*, described as follows: bounded by a line beginning at a point on the northerly side of Green street 8.25 feet south-east of a branch sewer line from the Mystic Valley Sewer line; thence N. 89° 30′ W. across said branch line on said northerly side of Green street, about 24.62 feet; thence N. 48° 25′ E. parallel with and 8.25 feet from said branch line, by land of said Skinner *et als.*, about 166.1 feet; thence N. 80° 34′ E. on the southerly line of Skinner *et als.* tannery, about 15.5 feet, to the south-east corner of said tannery; thence S. 41° 35′ E. by land of said Skinner *et als.*, about 8.25 feet; thence S. 48° 25′ W. parallel with and 8.25 feet from said branch line, by land of said Skinner *et als.*, about 160.94 feet, to the point of beginning; said parcel containing about 2,752 square feet.

Excepting, however, all public ways included in any of the aforesaid described parcels; and reserving and saving to each and all of the owners of said parcels for themselves and their heirs and assigns the right to cultivate said parcels and to pass and repass across the same with teams or otherwise to and from their adjoining lands; such rights of cultivation and of way, however, are to be so used as not to injure the sewer which the city is to construct, nor in any way or degree interfere with the use of said parcels for the purposes named in the Act, or the examination and repair of the works.

To have and to hold the same, the said City of Boston and

its successors, to its and their use and behoof agreeably to the provisions of the said Act.

IN COMMON COUNCIL, July 26, 1877.

Passed.
Sent up for concurrence.

BENJAMIN POPE,
President.

IN BOARD OF ALDERMEN, July 30, 1877.

Concurred.

JOHN T. CLARK,
Chairman.

July 31, 1877.

Approved.

FREDERICK O. PRINCE,
Mayor.

CITY OF BOSTON.

City Document No. 75.

AUDITOR'S MONTHLY EXHIBIT.

General and Special Appropriations for 1877–78.

Office of the Auditor of Accounts,
City Hall, August 3, 1877.

To the Honorable City Council: —

Gentlemen, — The undersigned, in compliance with the third Section of the Ordinance on Finance, herewith presents an Exhibit of the General and Special Appropriations for the present financial year of 1877–78, as shown in the books in his office, August 1, 1877, including the August draft, — being four monthly payments of the financial year, — exhibiting the original appropriations, the balances brought forward from the year 1876–77, the amount expended, and the balance of each unexpended at that date.

Respectfully submitted,

ALFRED T. TURNER,
Auditor of Accounts.

APPROPRIATIONS.

Object of Appropriations.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Additional Supply of Water . .	[1]$1,352,571 98	$305,435 19	$1,047,136 79
Advertising	2,500 00	556 05	1,943 95
Armories	22,000 00	5,569 17	16,430 83
Assessors' Department . . .	92,167 00	51,748 96	40,418 04
Auditor's Department . . .	15,650 00	5,068 35	10,581 65
Back Bay Streets and Avenues .	[2]3,084 61	61 17	3,023 44
Beach Street	[3]594 00	. . . .	594 00
Bells and Clocks	3,580 00	532 58	3,047 42
Board of Health	68,900 00	16,852 85	52,047 15
Boston Harbor	5,000 00	1,395 15	3,604 85
Branch Library, W. Roxbury Dist.	[4]10,000 00	1,552 02	8,447 98
Bridges	53,293 00	16,130 91	37,162 09
Broadway Extension . . .	[5]80,680 21	. . . .	80,680 21
Burnt District	[6]352,800 20	889 28	351,910 92
Cedar Grove Cemetery: Add Revenue received, $5,111 15	[7]5,217 75	8,205 95	2,122 95
Chelsea Bridge	[8]141,022 46	1,534 38	139,488 08
Chestnut Hill Driveway . . .	3,500 00	1,821 94	1,678 06
City Debt	672,700 00	. . . .	672,700 00
City Hospital . . . . . Add Revenue on Funds, $251 40	[9]127,000 00	43,775 50	83,475 90
City Registrar's Department . .	9,650 00	2,349 73	7,300 27
Cochituate Water Works: Revenue, $207,667 00; Running Expenses, $76,442 30; Interest, 64,268 83; Proportion paid under contract, 3,994 94	. . . .	144,706 07	62,960 93
Collector's Department . . .	42,600 00	13,004 88	29,595 12
Common, etc.	65,100 00	48,032 63	17,067 37
Com. Council chamber ventilation,	[10]3,000 00	. . . .	3,000 00
Commonwealth Avenue, Fencing and Grading,	[11]11,555 46	3,328 67	8,226 79
Completion West Chester Park, etc.	150,000 00	15,495 01	134,504 99
Contingent Funds:			
Joint Committees . . .	4,000 00	1,846 12	2,153 88
Mayor	3,000 00	191 75	2,808 25
Board of Aldermen . . .	3,000 00	1,072 70	1,927 30
Common Council . . .	3,000 00	1,102 57	1,897 43
County of Suffolk	365,000 00	94,425 76	270,574 24
Deeds, Real Est. Advertising, etc. Add Revenue received, $1,323 87	[12]9,176 60	2,371 00	8,129 47
East Boston Ferries . . .	165,000 00	54,963 21	110,036 79
Carried forward . . .	$3,846,343 27	$844,019 55	$3,216,677 14

[1] Brought from last year, $1,352,571 98
[2] Brought from last year, 3,084 61
[3] Brought from last year, 594 00
[4] Transferred from Reserved Fund, 10,000 00
[5] Brought from last year, 80,680 21
[6] Brought from last year, 352,800 20
[7] Brought from last year, $217 75
[8] Brought from last year, 26,022 46
[9] Brought from last year, 2,000 00
[10] Transferred from the Reserved Fund, 3,000 00
[11] Brought from last year, 5,555 46
[12] Brought from last year, 9,176 60

OBJECT OF APPROPRIATIONS.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward . . .	$3,846,343 27	$44,019 55	$3,216,677 14
Eastern Avenue and Bridge . .	[1]13,569 79	. . . .	13,569 79
Engineer's Department . . .	25,479 00	8,555 64	16,923 36
Engine House and Land, Fulton St.	[2]45,000 00	. . . .	45,000 00
English High and Latin School Buildings	. . . .	268 60	($268.60 provided for.)
Evergreen Cemetery: Add Revenue received, $30 00	[3]1,202 85	684 10	548 75
Fever Hospital, Gallop's Island .	2,500 00	1,597 09	902 91
Fire Alarm Telegraph . . .	[4]20,642 00	4,736 73	15,905 27
Fire Department	563,000 00	264,865 66	298,134 34
Francis Street School-house . .	[5]3,909 72	. . . .	3,909 72
Grammar School-house, Brighton District	[6]45,974 25	. . . .	45,974 25
Grammar School-house, Dorchester-Everett District	[7]19,194 97	10,881 27	8,313 70
Grammar School-house, Egleston Square	[8]10,397 13	. . . .	10,397 13
Grammar School-house, Washington Village	[9]80,775 00	11,623 57	69,151 43
Health Department . . .	365,000 00	118,316 58	246,683 42
Home for Poor, Deer Island . .	[10]147,500 00	. . . .	147,500 00
Improved Sewerage . . .	[11]20,256 04	4,208 82	16,047 22
Incidental Expenses: Add income of Foss and Babcock Funds, $409 72	87,000 00	32,873 34	54,536 38
Inspection of Buildings . . .	[12]18,600 00	5,079 38	13,520 62
Interest and Premium . . .	1,698,000 00	487,351 65	1,210,648 35
Lamps	490,000 00	132,692 79	357,307 21
Law Department	18,440,00	5,583 97	12,856 03
Liquor License Expenses: Add Revenue rec'd, $209,060 00	[13]2,523 48	*55,918 28	155,665 20
Markets	9,295 00	2,821 68	6,473 32
Memorial Monument, Boston Common	[14]52,500 00	10,800 00	41,700 00
Mount Hope Cemetery: Add Revenue received, $5,747 87	[15]16,526 61	14,367 61	7,906 87
Mt. Washington Avenue Bridge .	[16]8,000 00	. . . .	8,000 00
Mystic Sewer	[17]203,755 68	361 60	203,394 08
Mystic Water Works: Revenue, $31,925 40; Running expenses, $42,933 91; Interest, 12,270 00; Proportions paid under contracts, 8,550 32	. . . .	63,754 23	($31,828.83 prov. for.)
Carried forward . . .	$7,815,384 79	$2,081,362 14	$6,227,646 49

[1] Brought from last year, $13,569 79
[2] Brought from last year, 45,000 00
[3] Brought from last year, 202 85
[4] Brought from last year, 1,000 00
[5] Brought from last year, 3,909 72
[6] Brought from last year, 5,974 25
[7] Brought from last year, 16,194 97
[8] Brought from last year, 6,897 13
[9] Brought from last year, 80,775 00
[10] Brought from last year, $147,500 00
[11] Brought from last year, 20,256 04
[12] Transferred from the Reserved Fund, 4,600 00
[13] Brought from last year, 2,523 48
[14] Brought from last year, 52,500 00
[15] Brought from last year, 1,826 61
[16] Brought from last year, 8,000 00
[17] Brought from last year, 203,755 68

* Of this amount $50,935 00 were paid to State, being one-quarter of receipts for licenses, and $4,983 28 were expenses incurred under the law.

Object of Appropriations.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward, . . .	$7,815,384 79	$2,081,362 14	$6,227,646 49
Neponset Bridge	[1] 19,000 00	. . . .	19,000 00
New Engine Houses . . .	[2] 860 67	568 37	292 30
New Lunatic Hospital . . .	[3] 100,628 21	. . . .	100,628 21
Northampton Street District . .	[4] 20,532 27	1,506 54	19,025 73
Old Claims	2,000 00	301 37	1,698 63
Overseers of the Poor . . .	141,400 00	19,531 96	121,868 04
Park Department	[5] 2,159 92	. . . .	2,159 92
Paving, etc.	850,000 00	292,483 34	557,516 66
Play grounds	[6] 2,000 00	320 00	1,680 00
Police	841,300 00	278,998 00	562,302 00
Primary School-house, City Point .	[7] 15,000 00	. . . .	15,000 00
Primary School-house, Sherwin District	40,000 00	81 29	39,918 71
Printing and Stationery . . .	27,000 00	7,892 13	19,107 87
Prison Point Bridge . . .	[8] 2,629 03	2,256 05	372 98
Public Baths	25,000 00	8,589 09	16,410 91
Public Buildings	83,850 00	24,452 12	59,397 88
Public Institutions, viz.:			
House of Industry . . .	184,950 00	59,004 85	125,945 15
House of Correction . . .	91,150 00	30,505 34	60,644 66
Lunatic Hospital . . .	59,720 00	17,093 47	42,626 53
Pauper Expenses . . .	80,600 00	26,421 12	54,178 88
Steamboat "J. Putnam Bradlee"	18,170 00	3,496 98	14,673 02
Office Expenses	7,350 00	1,236 28	6,113 72
Marcella Street Home . .	25,000 00	8,245 74	16,754 26
Almshouse, Austin Farm . .	18,000 00	4,048 72	13,951 28
Almshouse, Charlestown District	9,000 00	2,087 18	6,912 82
Addition to building, Rainsford Island	16,000 00	. . . .	16,000 00
New Piggery, Deer Island . .	8,500 00	1,243 13	7,256 87
Public Lands	6,000 00	846 69	5,153 31
Public Library	[9] 120,626 00	42,337 68	78,288 32
Quarantine Department . . .	14,400 00	4,407 74	9,992 26
Registration of Voters and Election Expenses	22,200 00	4,788 78	17,411 22
Reserved Fund	[10] 260,400 00	. . . .	260,400 00
Salaries	31,950 00	10,533 37	21,416 63
Schools and School-houses, viz.:			
School Instructors . . .	1,115,520 00	391,684 95	723,835 05
School Expenses, School Com. .	245,000 00	82,927 24	162,072 76
Salaries Officers, School Com. .	51,000 00	19,237 22	31,762 78
School-houses, Public Buildings .	133,000 00	19,433 79	113,566 21
Carried forward . . .	$12,507,280 89	$3,447,922 67	$9,552,982 06

[1] Brought from last year, $19,000 00
[2] Brought from last year, 860 67
[3] Brought from last year, 100,628 21
[4] Brought from last year, 532 27
Transferred from Reserved Fund, 20,000 00
[5] Brought from last year, 2,159 92
[6] Transferred from the Reserved Fund, 2,000 00
[7] Brought from last year, 15,000 00
[8] Brought from last year, 2,629 03
[9] Brought from last year, $500 00
[10] Transferred to Branch Library West Roxbury District, 10,000 00
Com. Council chamber ventilation, 3,000 00
Inspection of Buildings, 4,600 00
Northampton-st. Dist., 20,000 00
Play grounds, 2,000 00

OBJECT OF APPROPRIATIONS.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward . . .	$12,507,280 89	$3,447,922 67	$9,552,982 06
Sealer of Weights and Measures .	3,700 00	934 79	2,765 21
Sewers	150,000 00	38,718 03	111,281 97
Sinking Fund Commissioners .	800 00	200 00	600 00
Small-pox Hospital . . .	[1]29,243 64	9,000 00	20,243 64
Soldiers' Relief:	[2]153,131 98	20,112 50	133,019 48
Suffolk Street District . . .	[3]2,164 03	89 20	2,074 83
Surveyor's Department . . .	36,176 00	11,666 51	24,509 49
Swett Street	[4]56,513 78	11,738 03	44,775 75
Tax and other Fees: Revenue received, $7,715 09	. . . .	167 15	7,547 94
Treasurer's Department . .	21,700 00	7,226 37	14,473 63
Washington Street Extension .	[5]30,863 90	. . . .	30,863 90
Water Works, West Roxbury and Brighton Districts	[6]25,403 78	24,562 41	841 37
West Boston and other Bridges .	[7]8,000 00	2,711 25	5,288 75
Widening Shawmut Avenue . .	[8]3,669 53	. . . .	3,669 53
Widening Streets	125,000 00	12,116 25	112,883 75
Total Appropriations, $10,267,258 00		$3,587,165 16	$10,067,821 30
Balances from 1876–77, 2,886,389 53		Less prov. for,	32,097 43
	$13,153,647 53		
Revenue	469,241 50		$10,035,723 87
	$13,622,889 03		

[1] Brought from last year, $29,243 64
[2] Brought from last year, 153,131 98
[3] Brought from last year, 2,164 03
[4] Brought from last year, 56,513 78
[5] Brought from last year, $30,863 90
[6] Brought from last year, 25,403 78
[7] Brought from last year, 1,500 00
[8] Brought from last year, 3,669 53

UNCOMPLETED PUBLIC BUILDINGS AND PUBLIC WORKS, MAY 1, 1877.

TOTAL APPROPRIATIONS AND EXPENDITURES FOR EACH.

The following table shows the total amount of appropriations made from time to time by the City Council, and the objects for which they were made, — the amount expended, and balance unexpended, including the August draft.

OBJECT OF APPROPRIATIONS.	Loan, Revenue, or from Transfers.	Expended.	Unexpended.
Additional Supply of Water (transfer, loans and premium on loans)	$4,462,886 80	$3,415,750 01	$1,047,136 79
Back Bay streets and avenues (loan and transfers)	462,000 00	458,976 56	3,023 44
Beach Street (loan and transfer)	253,969 96	253,375 96	594 00
Broadway Extension (loan)	1,000,000 00	919,319 79	80,680 21
Burnt District (loans)	6,671,176 65	6,319,265 73	351,910 92
Chelsea Bridge (appropriation)	158,000 00	18,511 92	139,488 08
Eastern Avenue and Bridge (loan)	200,000 00	186,430 21	13,569 79
Francis Street School-house (appropriation)	20,000 00	16,090 28	3,909 72
Grammar School-house, Brighton District (appro'tion)	46,000 00	25 75	45,974 25
Grammar School-house, Dorchester-Everett District (appropriation)	43,000 00	34,686 30	8,313 70
Grammar School-house, Egleston Square (appro'tion)	23,500 00	13,102 87	10,397 13
Grammar School-house, Washington Village (appro.)	115,000 00	45,848 57	69,151 43
Home for Poor, Deer Island (appropriation)	150,000 00	2,500 00	147,500 00
Memorial Monument, Boston Common (transfer)	75,000 00	33,300 00	41,700 00
Mystic Sewer (loan)	205,000 00	1,605 92	203,394 08
New Engine Houses (appropriation)	23,000 00	22,707 70	292 30
New Lunatic Hospital (loan and appropriation)	148,000 00	47,371 79	100,628 21
Northampton Street District (loan and transfers)	262,000 00	242,974 27	19,025 73
Suffolk Street District (loans and transfers)	2,428,248 96	2,426,174 13	2,074 83
Swett Street (loan)	376,000 00	331,224 25	44,775 75
Washington Street Extension (loans)	1,670,000 00	1,639,136 10	30,863 90
Water Works, West Roxbury and Brighton Districts (loans and premium on loans)	480,570 00	479,728 63	841 37
Widening Shawmut Avenue (transfer)	77,000 00	73,330 47	3,669 53
	$19,350,352 37	$16,981,437 21	$2,368,915 16

CITY OF BOSTON.

City Document No. 76.

FIRST SEMI-ANNUAL REPORT OF THE COMMITTEE ON INSPECTION OF PRISONS AND HOUSES OF DETENTION IN SUFFOLK COUNTY FOR THE YEAR 1877.

In Board of Aldermen, August 27, 1877.

The Special Committee of the Board of Aldermen who were appointed to inspect the prisons and houses of detention within the County of Suffolk, and make the examinations and reports required by the statutes of the Commonwealth, beg leave to submit their first semi-annual report for the municipal year 1877.

Your committee visited the House of Correction and Lunatic Hospital, at South Boston, on the 26th of June; the Houses of Industry and Reformation, at Deer Island, and the Suffolk County Jail, on Charles street, on the 27th of June. Copies of the reports, showing the condition of the several institutions, and covering the facts required by the statutes, are appended hereto.

All the buildings connected with the institution were found to be clean and, with the exception of the Lunatic Hospital, well ventilated. The construction of the latter building renders it impossible to ventilate it properly when the weather is such as to require that the windows should be closed. Your committee are of the opinion that some measures should be taken to remove the defect.

All the inmates of the House of Correction were employed on contract work for New York and Boston firms, and, at the time of the visit, there were two months' work ahead.

The inmates of all the institutions appeared to be under a good state of discipline, and no complaints of ill-treatment or of insufficiency of food were made.

Respectfully submitted,

HUGH O'BRIEN,
GEORGE DUNBAR,
CLINTON VILES,
Committee of Inspectors.

HOUSES OF INDUSTRY AND REFORMATION.

To the Inspectors of Prisons for County of Suffolk: —

Gentlemen, — The following is a report of the commitments to and discharge from the House of Industry, House of Reformation, and Truant School, from December 22, 1876, to June 27, 1877, both inclusive.

House of Industry, Commitments for

Drunkenness	2,255
Larceny	197
Assault and battery	170
Idle and disorderly	112
Common drunkard	77
Common night-walker	63
Vagabond	56
Maliciously breaking glass	28
Fornication	13
Maliciously injuring property	11
Common beggar	9
Disturbing the peace	9
Keeping a noisy and disorderly house	6
Keeping a house of ill-fame	5
Standing on sidewalk	4
Embezzlement	4
Receiving stolen property	4
Stubbornness and disobedience	3
Idle, vagrant, and vicious	2
Obtaining property by false pretences	1
Attemping larceny	2
Disturbing a public meeting	2
Common railer and brawler	2
Stealing a ride	2
Cruelty to animals	2
Playing cards on Lord's day	2
Selling leased property	2
Assault on an officer	1
Threatening an assault	1
Keeping an unlicensed dog	1
Throwing snowballs in the street	1
Driving away a horse without legal right	1
Indecent exposure	1
Total	3,049

DISCHARGES.

Expired sentences	2,571
Pardoned by Directors	202
Paid fines and costs	346
Died	6
Sent to Insane Asylum	2
Total	3,127

SUMMARY.

Number remaining Dec. 21, 1876	792
" committed since Dec. 21, 1876	3,049
	3,841
" discharged since Dec. 21, 1876	3,127
" remaining June 27, 1877	714

HOUSE OF REFORMATION, COMMITMENTS FOR

	Boys.	Girls.	Total.
Truancy	18	2	20
Juvenile vagrancy	8	2	10
Larceny	33	1	34
Stubbornness and disobedience	5	3	8
Idle, vagrant, and vicious	1	3	4
Attempting larceny	2		2
Assault and battery	2		2
Driving away horse without legal right	1		1
Disturbing religious meeting	1		1
Total	71	11	82

DISCHARGES.

	Boys.	Girls.	Total.
Expired sentence	17	2	19
Pardoned by Directors	49	8	57
Transferred to Truant School	88	0	88
Total	154	10	164

SUMMARY.

Number remaining Dec. 21, 1876: —		
Boys, 286, girls, 29. Total		315
Number committed since: —		
Boys, 71, girls, 11. Total		82
		397
Number discharged since: —		
Boys, 154, girls 10. Total		164
Number remaining June 27, 1877: —		
Boys, 203, Girls, 30. Total		233

TRUANT SCHOOL.

Number transferred from House of Reformation, May 7, 1877		88
Committed from May 7, 1877, to June 27, 1877 .		28
		116
Discharged as pardoned by Directors . .	5	
" " expired sentence . . .	11	
	—	16
Number remaining June 27, 1877 . . .		100

Respectfully submitted

GUY C. UNDERWOOD,
Superintendent.

DEER ISLAND, BOSTON HARBOR, June 27, 1877.

SUFFOLK COUNTY JAIL.

BOSTON, June 30, 1877.

To the Honorable Board of Aldermen, Inspectors of Prisons:—

The total number of prisoners in Suffolk County Jail on June 27, 1877, the date of your inspection, was 128.

Total number committed from December 22, 1876 (the date of prisoners' inspection), to June 26, 1877, inclusive, was 1,445.

No unusual event has occurred, and no sickness, except the irregularities incident to crime; no deaths, no escapes.

Two children were born in jail within the past six months (one still-born, and one a healthy boy).

Christian Johnson, held for non-payment of fine for illegal sale of intoxicating liquor, was pardoned April 4, 1877, by the Governor of the Commonwealth.

All matters connected with the jail have proceeded regularly and orderly.

Very respectfully, your obedient servant,

JOHN M. CLARK,
Sheriff.

LUNATIC HOSPITAL.

Return of the Boston Lunatic Hospital to the Committee for Inspection for the term ending June 26, 1877.

Number remaining at the previous inspection of December 27, 1876: —

Males	95	
Females	96	
	—	191
Admitted since: —		
Males	10	
Females	11	
	—	21
Whole number under care during the term		212
Discharged since: —		
Males	9	
Females	9	
	—	18
Remaining at last inspection, June 26, 1877: —		
Males	96	
Females	98	
	—	194
Of those discharged there were: —		
Recovered	6	
Improved	1	
Not improved	1	
Died	10	
	—	18
The *causes of death* were: —		
Consumption	4	
Disease of brain	3	
Disease of heart	1	
Erysipelas	1	
Exhaustion	1	
	—	10

No suicide, no accident of any kind, no epidemic, or unusual sickness mars the record of the term.

All the requirements of law have been faithfully observed, so far as the construction of the old building would permit.

As many of the patients are employed in the kitchens, laundry, and sewing-room, and in the garden and grounds, as are needed; but only a limited number of those asking for it can be furnished with employment.

All our usual means for recreation and amusement are kept in constant use, and with good results.

Nothing that can relieve the tedium of hospital life, add to the pleasure and comforts of the patient, and increase their means for recovery, escapes the attention of President Little, or fails of the approval of the Board of Directors.

If the order relating to commitments by the Judge of Probate were so changed as to include a consultation with the Board of Directors, our wards could be kept constantly filled, and this hospital filling its full measure of good.

Respectfully submitted,

CLEMENT A. WALKER,
Superintendent.

HOUSE OF CORRECTION.

Boston, June 28, 1877.

To the Inspectors of Prisons and Houses of Detention in Suffolk County: —

Gentlemen, — The committee visited the House of Correction, in South Boston, June 26, 1877. The number of prisoners remaining at the last inspection, Dec. 27, 1876, was: — Males, 507; females, 71. Total, 578.

Committed, from Dec. 27, 1876, to June 26, 1877, inclusive: — Males, 390; females, 47. Total, 437.

Discharged, from Dec. 27, 1876, to June 26, 1877, inclusive: — Males, 355; females, 50. Total, 405.

Remaining, June 26, 1877: — Males, 542; females, 68. Total, 610.

Miscellaneous.

Discharged — expiration of sentence	380
Pardoned by Governor	1
Paid fine and costs	9
Discharged by order of Municipal Court after serving three months	14
Died	1

The inmates continue to enjoy general good health, and no epidemic sickness has prevailed.

The sanitary condition of the prison is excellent; all parts being kept clean and well ventilated.

The discipline of former years is still maintained, and the punishments are the same as heretofore inflicted, viz.: deprivation of bed and confinement in solitary cells; but one inmate being confined in a cell at a time.

The quality of the food furnished the prisoners is good, and the quantity sufficient for their daily needs.

Labor. — During the past six months, a revival of business seems to have taken place, and at the present time all our machines are kept constantly employed, with good prospects for a continuance of the same.

Respectfully,

M. V. B. BERRY,
Master.

CITY OF BOSTON.

City Document No. 77.

AUDITOR'S MONTHLY EXHIBIT.

General and Special Appropriations for 1877–78.

Office of the Auditor of Accounts,
City Hall, September 5, 1877.

To the Honorable City Council: —

Gentlemen, — The undersigned, in compliance with the third Section of the Ordinance on Finance, herewith presents an Exhibit of the General and Special Appropriations for the present financial year of 1877–78, as shown in the books in his office, September 1, 1877, including the September draft, — being five monthly payments of the financial year, — exhibiting the original appropriations, the balances brought forward from the year 1876–77, the amount expended, and the balance of each unexpended at that date.

Respectfully submitted,

ALFRED T. TURNER,
Auditor of Accounts.

APPROPRIATIONS.

Object of Appropriations.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Additional Supply of Water	[1]$1,352,571 98	$452,722 57	$899,849 41
Advertising	2,500 00	716 34	1,783 66
Armories	22,000 00	5,675 12	16,324 88
Assessors' Department	92,167 00	58,104 46	34,062 54
Auditor's Department	15,650 00	6,330 76	9,319 24
Back Bay Streets and Avenues	[2]3,084 61	595 29	2,489 32
Beach Street	[3]594 00	. . . .	594 00
Bells and Clocks	3,580 00	590 70	2,989 30
Board of Health	68,900 00	21,134 59	47,765 41
Boston Harbor	5,000 00	1,695 03	3,304 97
Branch Library, W. Roxbury Dist.	[4]10,000 00	5,025 61	4,974 39
Bridges	53,293 00	22,321 45	30,971 55
Broadway Extension	[5]80,680 21	. . . .	80,680 21
Burnt District	[6]352,800 20	889 28	351,910 92
Cedar Grove Cemetery: Add Revenue received, $6,161 36	[7]5,217 75	10,112 72	1,266 39
Chelsea Bridge	[8]141,022 46	2,053 22	138,969 24
Chestnut Hill Driveway	3,500 00	2,547 75	952 25
City Debt	672,700 00	. . . .	672,700 00
City Hospital. Add Revenue on Funds, $251 40	[9]127,000 00	54,484 04	72,767 36
City Registrar's Department	9,650 00	2,919 66	6,730 34
Cochituate Water Works: Revenue, $219,979 73; Running Expenses, $100,185 04; Interest, 115,488 83; Proportion paid under contract, 5,600 85	. . . .	221,274 72	($1,294 99 prov. for.)
Collector's Department	42,600 00	16,441 97	26,158 03
Common, etc.	65,100 00	55,335 41	9,764 59
Com. Council Chamber ventilation,	[10]3,000 00	. . . .	3,000 00
Commonwealth Avenue, Fencing and Grading,	[11]11,555 46	3,328 67	8,226 79
Completion West Chester Park, etc.	150,000 00	35,430 85	114,569 15
Contingent Funds:			
Joint Committees	4,000 00	2,034 82	1,965 18
Mayor	3,000 00	194 75	2,805 25
Board of Aldermen	3,000 00	1,460 35	1,539 65
Common Council	3,000 00	1,150 17	1,849 83
County of Suffolk	365,000 00	109,896 18	255,103 82
Deeds, Real Est. Advertising, etc. Add Revenue received, $4,160 77	[12]9,176 60	3,382 40	9,954 97
East Boston Ferries	165,000 00	71,578 36	93,421 64
Carried forward	$3,846,343 27	$1,169,427 24	$2,908,764 28

[1] Brought from last year, $1,352,571 98
[2] Brought from last year, 3,084 61
[3] Brought from last year, 594 00
[4] Transferred from Reserved Fund, 10,000 00
[5] Brought from last year, 80,680 21
[6] Brought from last year, 352,800 20
[7] Brought from last year, $217 75
[8] Brought from last year, 26,022 46
[9] Brought from last year, 2,000 00
[10] Transferred from the Reserved Fund, 3,000 00
[11] Brought from last year, 5,555 46
[12] Brought from last year, 9,176 60

OBJECT OF APPROPRIATIONS.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward . . .	$3,846,343 27	$1,169,427 24	$2,908,764 28
Eastern Avenue and Bridge . .	[1]13,569 79	. . . .	13,569 79
Engineer's Department . . .	25,479 00	10,163 29	15,315 71
Engine House and Land, Fulton St.	[2]45,000 00	. . . .	45,000 00
English High and Latin School Buildings	. . . .	381 54	($381.54 provided for.)
Evergreen Cemetery: Add Revenue received, $30 00	[3]1,202 85	862 60	370 25
Fever Hospital, Gallop's Island .	2,500 00	2,061 22	438 78
Fire Alarm Telegraph . . .	[4]20,642 00	6,217 62	14,424 38
Fire Department	563,000 00	299,668 37	263,331 63
Francis Street School-house . .	[5]3,909 72	. . . .	3,909 72
Grammar School-house, Brighton District	[6]45,974 25	. . . .	45,974 25
Grammar School-house, Dorchester-Everett District	[7]19,194 97	15,596 32	3,598 65
Grammar School-house, Egleston Square	[8]10,397 13	1,006 50	9,390 63
Grammar School-house, Washington Village	[9]80,775 00	16,034 81	64,740 19
Health Department . . .	365,000 00	147,037 21	217,962 79
Home for Poor, Deer Island . .	[10]147,500 00	. . . .	147,500 00
Improved Sewerage . . .	[11]20,256 04	6,011 12	14,244 92
Incidental Expenses: Add income of Foss and Babcock Funds, $409 72	87,000 00	36,046 64	51,363 08
Inspection of Buildings . . .	[12]18,600 00	6,678 72	11,921 28
Interest and Premium . . .	1,698,000 00	621,822 56	1,076,177 44
Lamps	490,000 00	164,813 62	325,186 38
Law Department	18,440,00	6,973 57	11,466 43
Liquor License Expenses: Add Revenue rec'd, $242,821 00	[13]2,523 48	*66,470 59	178,873 89
Markets	9,295 00	3,630 23	5,664 77
Memorial Monument, Boston Common	[14]52,500 00	10,800 00	41,700 00
Mount Hope Cemetery: Add Revenue received, $7,843 84	[15]16,526 61	17,625 05	6,745 40
Mt. Washington Avenue Bridge .	[16]8,000 00	. . . .	8,000 00
Mystic Sewer	[17]203,755 68	665 95	203,089 73
Mystic Water Works: Revenue, $51,065 21; Running expenses, $49,289 34; Interest, 12,660 00; Proportions paid under contracts, 11,058 17	. . . .	73,007 51	($21,942.30 prov. for.)
Carried forward . . .	$7,815,384 79	$2,683,002 28	$5,688,724 37

[1] Brought from last year, $13,569 79
[2] Brought from last year, 45,000 00
[3] Brought from last year, 202 85
[4] Brought from last year, 1,000 00
[5] Brought from last year, 3,909 72
[6] Brought from last year, 5,974 25
[7] Brought from last year, 16,194 97
[8] Brought from last year, 6,897 13
[9] Brought from last year, 80,775 00
[10] Brought from last year, $147,500 00
[11] Brought from last year, 20,256 04
[12] Transferred from the Reserved Fund, 4,600 00
[13] Brought from last year, 2,523 48
[14] Brought from last year, 52,500 00
[15] Brought from last year, 1,826 61
[16] Brought from last year, 8,000 00
[17] Brought from last year, 203,755 68

* Of this amount $59,301 25 were paid to State, being one-quarter of receipts for licenses, and $7,169 34 were expenses incurred under the law.

Object of Appropriations.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward, . . .	$7,815,384 79	$2,683,002 28	$5,688,724 37
Neponset Bridge	[1] 19,000 00	. . . .	19,000 00
New Engine Houses . . .	[2] 860 67	568 37	292 30
New Lunatic Hospital . . .	[3] 100,628 21	. . . .	100,628 21
Northampton Street District . .	[4] 20,532 27	1,694 24	18,838 03
Old Claims	2,000 00	303 37	1,696 63
Overseers of the Poor . . .	141,400 00	26,054 25	115,345 75
Park Department	[5] 2,159 92	. . . .	2,159 92
Paving, etc.	850,000 00	362,703 57	487,296 43
Play grounds	[6] 2,000 00	320 00	1,680 00
Police	841,300 00	348,855 03	492,444 97
Primary School-house, City Point .	[7] 15,000 00	. . . .	15,000 00
Primary School-house, Sherwin District	40,000 00	81 29	39,918 71
Printing and Stationery . . .	27,000 00	10,579 09	16,420 91
Prison Point Bridge . . .	[8] 2,629 03	2,256 05	372 98
Public Baths	25,000 00	11,029 60	13,970 40
Public Buildings	83,850 00	31,920 73	51,929 27
Public Institutions, viz.:			
House of Industry . . .	184,950 00	69,444 74	115,505 26
House of Correction . . .	91,150 00	37,312 94	53,837 06
Lunatic Hospital . . .	59,720 00	20,281 24	39,438 76
Pauper Expenses . . .	80,600 00	28,597 03	52,002 97
Steamboat "J. Putnam Bradlee"	18,170 00	3,961 00	14,209 00
Office Expenses	7,350 00	1,304 78	6,045 22
Marcella Street Home . .	25,000 00	9,543 24	15,456 76
Almshouse, Austin Farm . .	18,000 00	4,465 66	13,534 34
Almshouse, Charlestown District	9,000 00	2,678 24	6,321 76
Addition to building, Rainsford Island	16,000 00	741 41	15,258 59
New Piggery, Deer Island . .	8,500 00	4,652 09	3,847 91
Public Lands	6,000 00	1,400 51	4,599 49
Public Library	[9] 120,626 00	51,678 48	68,947 52
Quarantine Department . . .	14,400 00	6,440 18	7,959 82
Registration of Voters and Election Expenses	22,200 00	5,978 03	16,221 97
Reserved Fund	[10] 260,400 00	. . . .	260,400 00
Salaries	31,950 00	13,167 71	18,782 29
Schools and School-houses, viz.:			
School Instructors . . .	1,115,520 00	488,387 95	627,132 05
School Expenses, School Com. .	245,000 00	106,379 78	138,620 22
Salaries Officers, School Com. .	51,000 00	24,077 06	26,922 94
School-houses, Public Buildings .	133,000 00	38,154 63	94,845 37
Carried forward . . .	$12,507,280 89	$4,398,014 57	$8,665,608 18

[1] Brought from last year, $19,000 00
[2] Brought from last year, 860 67
[3] Brought from last year, 100,628 21
[4] Brought from last year, 532 27
Transferred from Reserved Fund, 20,000 00
[5] Brought from last year, 2,159 92
[6] Transferred from the Reserved Fund, 2,000 00
[7] Brought from last year, 15,000 00
[8] Brought from last year, 2,629 03
[9] Brought from last year, $500 00
[10] Transferred to Branch Library West Roxbury District, 10,000 00
Com. Council Chamber ventilation, 3,000 00
Inspection of Buildings, 4,600 00
Northampton-st. Dist., 20,000 00
Play grounds, 2,000 00

OBJECT OF APPROPRIATIONS.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward . . .	$12,507,280 89	$4,398,014 57	$8,665,608 18
Sealer of Weights and Measures .	3,700 00	1,099 08	2,600 92
Sewers	150,000 00	64,706 00	85,294 00
Sinking Fund Commissioners .	800 00	200 00	600 00
Small-pox Hospital . . .	[1]29,243 64	11,721 73	17,521 91
Soldiers' Relief:	[2]153,131 98	26,899 00	126,232 98
Suffolk Street District . . .	2,164 03	107 09	2,056 94
Surveyor's Department . . .	36,176 00	14,371 63	21,804 37
Swett Street	[4]56,513 78	17,376 12	39,137 66
Tax and other Fees: Revenue received, $14,123 86	. . . .	205 29	13,918 57
Treasurer's Department . .	21,700 00	9,020 67	12,679 33
Washington Street Extension .	[5]30,863 90	. . . .	30,863 90
Water Works, West Roxbury and Brighton Districts	[6]25,403 78	25,403 78	. . . .
West Boston and other Bridges .	[7]8,000 00	2,968 68	5,031 32
Widening Shawmut Avenue . .	[8]3,669 53	. . . .	3,669 53
Widening Streets	125,000 00	13,719 52	111,280 48
Total Appropriations, $10,267,258 00		$4,585,813 16	$9,138,300 09
Balances from 1876–77, 2,886,389 53		Less prov. for,	23,618 83
	$13,153,647 53		
Revenue	546,846 89		$9,114,681 26
	$13,700,494 42		

[1] Brought from last year, $29,243 64
[2] Brought from last year, 153,131 98
[3] Brought from last year, 2,164 03
[4] Brought from last year, 56,513 78
[5] Brought from last year, $30,863 90
[6] Brought from last year, 25,403 78
[7] Brought from last year, 1,500 00
[8] Brought from last year, 3,669 53

UNCOMPLETED PUBLIC BUILDINGS AND PUBLIC WORKS, MAY 1, 1877.

TOTAL APPROPRIATIONS AND EXPENDITURES FOR EACH.

The following table shows the total amount of appropriations made from time to time by the City Council, and the objects for which they were made, — the amount expended, and balance unexpended, including the September draft.

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Back Bay streets and avenues (loan and transfers)	462,000 00	459,510 68	2,489 32
Beach Street (loan and transfer)	253,969 96	253,375 96	594 00
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Grammar School-house, Brighton District (appro'tion)	46,000 00	25 75	45,974 25
Grammar School-house, Dorchester-Everett District (appropriation)	43,000 00	39,401 35	3,598 65
Grammar School-house, Egleston Square (appro'tion)	23,500 00	14,109 37	9,390 63
Grammar School-house, Washington Village (appro.)	115,000 00	50,259 81	64,740 19
Home for Poor, Deer Island (appropriation)	150,000 00	2,500 00	147,500 00
Memorial Monument, Boston Common (transfer)	75,000 00	33,300 00	41,700 00
Mystic Sewer (loan)	205,000 00	1,910 27	203,089 73
New Engine Houses (appropriation)	23,000 00	22,707 70	292 30
New Lunatic Hospital (loan and appropriation)	148,000 00	47,371 79	100,628 21
Northampton Street District (loan and transfers)	262,000 00	243,161 97	18,838 03
Suffolk Street District (loans and transfers)	2,428,248 96	2,426,192 02	2,056 94
Swett Street (loan)	376,000 00	336,862 34	39,137 66
Washington Street Extension (loans)	1,670,000 00	1,639,136 10	30,863 90
Water Works, West Roxbury and Brighton Districts (loans and premium on loans)	480,570 00	480,570 00	
Widening Shawmut Avenue (transfer)	77,000 00	73,330 47	3,669 53
	$19,350,352 37	$17,146,899 74	$2,203,452 63

CITY OF BOSTON.

City Document No. 78.

REPORT ON INSPECTION OF LIME IN CITY OF BOSTON.

In Board of Aldermen, Sept. 12, 1877.

The committee appointed to consider the petition of the Cobb Lime Company and others, asking for the removal of Daniel Higgins, Inspector of Lime, after hearing the petitioners and the Inspector, who were also represented by counsel, respectfully report:—

That the statute regulating the inspection of lime, since its enactment some forty years ago, has been a dead letter; that the law has never been enforced, and that no one has ever asked for its enforcement.

That there is not a barrel of lime in Boston to-day, whether the product of Maine or Massachusetts or Connecticut, that comes up to the requirements of the statute. That no lime could be obtained for some months to come that would conform strictly to the letter of the law, and that its strict enforcement would seriously embarrass all building operations; might be the means of turning out of employment hundreds of mechanics and laborers; would interfere with the completion of contracts, and seriously embarrass dealers in lime by confiscating their property.

That it was not shown that dealers had any intention to defraud; that at least 90 per cent. of the quantity consumed was bought and sold as Maine inspected lime, buyers knowing precisely what they were purchasing; that the Inspector has seized about 1,100 barrels of lime, for which the owners have given a bond; that after the bond had been given the Inspector allowed the owner to do what he pleased with the lime; showing that the object of the seizure was more to obtain the bond than to protect the public; that the Inspector has overlooked small lots of lime, where the law was as clearly violated in the size of the package, and turned his attention wholly to large lots; that of the numerous dealers in lime he only notified four of his intention to enforce the

statutes; and that the Inspector sought no advice or instruction from the Mayor, or from the City Council, to whom he was indebted for his election, and who can dismiss him at their pleasure; that no lime is now being shipped from Maine to this port; that there is only a sufficient supply on hand to last for a week or two, and that no more lime will be shipped from Maine until the owners are assured that their property will not be confiscated. An inspection law which has never been enforced since its enactment, it appears to the committee, should not be sprung upon the business community without due and proper notice, in justice to our citizens engaged in this trade, and in justice to the citizens of other States who forward the lime to this market in good faith. It is certainly taking an unfair advantage of what has always been considered an obsolete inspection law.

In regard to Mr. Higgins, the committee would state that he has acted within the limits of the statute; that it was a mistake on the part of the City Council to elect an Inspector of Lime until such time as our laws could be so changed as to allow the importation of lime from other States, as we are dependent almost wholly on other States for a supply.

In view of these facts it appeared to the committee that there was only one course to pursue. The statutes provide that Inspectors of Lime *may* be elected by the City Council, and it is also in the power of the City Council to remove the Inspector.

The committee would therefore respectfully recommend the passage of the following orders.

HUGH O'BRIEN,
JOHN E. FITZGERALD,
LUCIUS SLADE,
Committee.

Ordered, That Daniel Higgins, Inspector of Lime, be, and he hereby is, removed from office for cause satisfactory to the City Council.

Ordered, That his Honor the Mayor be requested to petition the General Court at its next session for such a change in the laws as will allow our citizens engaged in this branch of trade to import lime from Maine and other States without coming in conflict with the statutes of this Commonwealth.

In Board of Aldermen, Sept. 12, 1877.
Read twice and passed. Sent down for concurrence.

JOHN T. CLARK,
Chairman.

APPENDIX.

INVESTIGATION BY A SPECIAL COMMITTEE OF THE BOARD OF ALDERMEN INTO THE OFFICIAL ACTION OF DANIEL HIGGINS, INSPECTOR OF LIME.

COMMITTEE. — Aldermen O'Brien (chairman), Fitzgerald, and Slade.

TUESDAY, Sept. 11, 1877.

The Committee met in the Aldermen's Chamber at four P.M., all the members present.

Messrs. P. A. Collins and Walter C. Brinley appeared for the petitioners.

Mr. John E. Avery appeared for Mr. Higgins.

The chairman read the following: —

To the Honorable the City Council of the City of Boston: —

The undersigned, dealers in lime in said Boston, respectfully represent that Daniel Higgins, one of the inspectors of lime in said Boston, has seized and libelled large quantities of lime in the possession of dealers in said city for an alleged violation of law, in that the casks containing said lime do not strictly conform in size, number of hoops, etc., to the requirements of the statute of this Commonwealth. And said Higgins threatens that he will seize and libel all the lime contained in such casks wherever found within the limits of said city. And your petitioners represent that since they have been engaged in the business they have bought and sold lime of good quality, and in casks and quantities satisfactory to consumers. That most of said lime comes from without this Commonwealth, and the casks and quantities contained therein conform to the laws of the respective States where the same are manufactured, which laws differ slightly from the requirements of the statute of this State relating to lime. That during all these years no inspection of lime has been demanded by any one interested in buying or selling lime, and none is required or requested now. That it is impossible for your petitioners to obtain, during the current year, the quantity of lime needed in the Boston market, in packages of the exact size required by the Massachusetts statute, and that the casks which they can obtain lime in are, in size, capacity, and strength, satisfactory to purchasers and sellers, as well as safe and convenient. That it would be a serious public injury and great oppression, to permit prosecutions and seizures by said inspector, according to the strict letter of the law. That your petitioners have requested said inspector to suspend prosecutions and seizures until the assembling of the next General Court, in order that the amendments suggested by the experience of years may be made to the present statutes in respect to the size of casks, etc.; but said Higgins refused to do so, and declares that he will prosecute every dealer in Boston; that said Higgins is not a proper person to fill said office; that he is oppressive, unreasonable, and actuated by greed of gain rather than a desire to promote the public welfare. Whereof they pray that your honorable bodies will remove said Higgins from said office.

(Signed)

Cobb Lime Co., D. H. Ingraham, agent; J. S. Hobbs & Co., D. Roby & Co., H. B. Emerson, Henry Crufts & Sons, G. W. Curtis, Joseph Ham, J. G. N. G. Gooch, Edwin Adams, T. W. Hoxie & Co., J. Ellery Piper & Co., J. P. Stewart & Co., Edward S. Kent, R. G. Morse & Co., John W. Leighton, Thomas J. Whidden.

IN BOARD OF ALDERMEN, Sept. 10, 1877.

Referred to Aldermen O'Brien, Fitzgerald, and Slade, with instructions to confer with Mr. Higgins.

S. F. McCLEARY,
City Clerk.

Daniel Higgins was called and invited to make a statement.

Mr. Higgins. — When I was appointed Inspector last April, I went on the 29th day and informed the dealers that I would like to inspect their lime. Some refused to have it inspected because it was not fit to be inspected, according to the laws of the Commonwealth. I then commenced prosecuting them about the first of September. I waited four months to give them an opportunity to change the gauge of their barrels. I should not have waited so long had it not been for circumstances over which I had no control; I should have done it a month earlier. I found the law of the Commonwealth calling for a cask calling for twenty-eight gallons and a half, and I found them bringing here a cask that it is almost impossible to find the cubic contents of. I think it would puzzle you. Allowing for the bilge, according to the size, they would not contain over twenty-three gallons; so that I felt it my duty as an officer, sworn to carry out the provisions of this statute, to make a seizure, and I done so, and that is all I have got to say.

Q. (By Mr. Collins.) When were you appointed?

A. In April.

Q. What time? (Witness handed Mr. Collins a paper.) You were elected Inspector of Lime on the first Monday of April, 1877, by concurrent vote of both branches. You got your certificate and took the oath about the 25th of April?

A. I think so, sir.

Q. Now you say you went to the dealers in lime in Boston and asked them to let you inspect their lime?

A. Yes, sir.

Q. How many dealers did you go to?

A. I went to Mr. Emerson for one, and to Mr. Roby, one of the principal dealers; also to Mr. Hobbs' place. Mr. Hobbs was not in. I left a note with his young man, acting as clerk with him, directed to his address and residence in Charlestown. I informed those four at their places about that time.

Q. How many lime-dealers are there in Boston,— in all parts of the city of Boston?

A. I never counted them.

Q. You don't know how many lime-dealers there are?

A. No, sir.

Q. There must be a hundred at least?

A. I should judge not.

Q. Fifty?

A. No, sir.

Q. Forty?

A. No, sir.

Q. Your best judgment is that there are not forty men in Boston who deal in lime.

A. Between big and little, not over that.

Q. You notified four of them?

A. Yes, sir.

Q. You asked permission to inspect their casks; what did they say?

A. They told me they don't want it; that this law was made for Massachusetts lime and not for Maine lime, and that that was already inspected.

Q. In Maine?

A. Yes, sir.

Q. From that time until September, or about the first of September, did you do anything with those four dealers?

A. I did not.

Q. Did you hold any communication with them?

A. No, sir.

Q. Did you visit any of the other thirty-six firms in Boston?

A. No, sir, I did not, and I will state the reason.

Q. You can state the reason.

A. Because I am pretty confident that they all knew it, and the law doesn't require me to notify any one.

Q. Have you stated the substance of the conversation with those four gentlemen — dealers in lime — whom you went to see in April?

A. Yes, sir; the substance of it.

Q. Then about the first of September you seized the lime. When?

A. A week ago.

Q. Where did you seize the lime?

A. I seized lime from Mr. Roby, the first man.

Q. How many barrels?

A. About 40 head; about 700 casks.

Q. Had you seen those casks before you seized them?

A. No, sir; I never knew that he had them.

Q. And you went down to see what he had.

A. Yes, sir.

Q. Never been there before?

A. Two weeks before.

Q. You went down that day to seize all he had.

A. Yes, sir.

Q. Now, when was the next seizure?

A. The next seizure was made a couple of days after. The keeper over there was relieved, and I sent him down to Mr. Emerson's. I haven't a great deal of money to hire many keepers at a time, and have to work in that way.

Q. After seizing at Mr. Carr's, — you seized 700 there, — where did you go next?

A. To Mr. Emerson's.

Q. Yes, sir, after your keeper got relieved at Carr's. How many did you seize at Mr. Emerson's?

A. About 300.

Q. Have you seized anything else?

A. About 100 barrels from Mr. Hobbs.

Q. Yes, sir, and you got bonds in those three cases?

A. Yes, sir.

Q. That was done when?

A. All last week.

Q. When was the last seizure?

A. I believe on last Friday.

Q. Was that the day you had an investigation before the Mayor in the morning?

A. No, sir; I had it in the afternoon.

Q. What time?

A. I don't know about what time.

Q. You needn't be so sharp about it; we are only asking for facts.

A. You have a better recollection than I have.

Q. It was twelve o'clock. What time did you seize the lime that day?

A. I should judge in about an hour or an hour and a half after I left City Hall.

Q. Whom did you take then?

A. I took a keeper with me.

Q. What firm?

A. Mr. Hobbs'. I seized 100 casks.

Q. Was not Mr. Hobbs present at that meeting in the Mayor's office?

A. Yes, sir, I believe he was.

Q. And contradicted a statement you made there?

A. He contradicted a statement. I stated, as I state now, that I left a note on his desk, and he said he didn't know anything about it.

Q. That was a question of veracity between you and him. At that conversation the hardships which would result from the enforcement of this obsolete statute were plainly put to you by His Honor the Mayor and the lime-dealers present?

A. I know there was one gentleman present who made an oration, and said the city was going to fall, and be a Sodom and Gomorrah.

Q. But the plain question I ask you is this: Wasn't it stated by the Mayor and the gentlemen present engaged in the lime business, that it would be impossible for them to do business, and a great hardship to have this old statute enforced at this time? And weren't you asked, at that meeting, to wait until such an harmonious arrangement could be made for the public generally?

A. I was asked to suspend operations until the Legislature met. I didn't know that any one had any authority, and I used my own judgment.

Q. You used it by seizing lime that afternoon?

A. I did, sir.

Q. Didn't you promise his Honor the Mayor to consider the proposition?

A. I made no promise. This man, Mr. Brinley, stirred up and said I would not agree to do anything. You needn't ask me anything about it.

Q. Didn't you say you would call again and see the Mayor and give him your answer?

A. I did not; I said I would call again and see him, but I did not agree to give him any answer.

Q. Now, what were you going to call and see the Mayor about?

A. About nothing in particular.

Q. But what did you tell him you would come to see him about?

A. I have no distinct recollection about calling to see him about anything in particular.

Q. Did you call to see the Mayor again?

A. I told him I would give him as much honor as any one, he being the Chief Magistrate of the city. But I don't think he used me with much respect in the matter, and therefore I didn't —

Q. In what respect did the Mayor treat you disrespectfully?

A. Because he tried to misquote the law different from what some of the best lawyers in this city. He told me the law didn't call for inspection, when it provides a dollar and fifty cents for each cask offered for sale without being inspected. I thought it pretty good proof that the law intended that the lime should be inspected; and I thought he, being a lawyer, tried to impose upon my credulity.

Q. Was that before you promised to come and see him?

A. It was about the same time.

Q. Did his Honor the Mayor hear the answer given to Mr. Brinley?

A. He did, sir, without he is deaf as a post.

Q. What is your opinion?

A. That is my opinion.

Q. What did you tell Mr. Brinley?

A. I positively declined to make any arrangement and promise.

Q. Or take it into consideration at all?

A. Yes, sir.

Q. What did you say to the Mayor about it?

A. I didn't say anything. I am willing that the Mayor should come here and testify if I made any promise whatever. I merely said to the Mayor I would come and see him about it; that I will come and see him at some future time when I was ready.

Q. Didn't you say to the Mayor you would call and see him before doing anything further?

A. I did not, sir. I never made such a statement.

Q. What is your business?

A. Marble-cutter.

Q. Have you ever manufactured lime?

A. I decline to state. It has nothing to do with this business.

THE CHAIRMAN. — You must answer.

WITNESS. — I have had an intimate acquaintance with lime since boyhood. I was born in a limestone country. I have made and burnt lime myself out of marble. I know exactly what is good lime.

Q. Now, I will ask you what limestone country you were born in?

A. I was born in Ireland. It is a limestone country.

Q. Did you ever burn lime there?

A. Yes, sir.

Q. Have you seen men burn lime?

A. Yes, sir; in my boyhood.

Q. And then where did you learn the marble-cutting business?

A. I learned it here.

Q. Until you came into the marble-cutting business, did you burn any lime out of marble?

A. I don't know as I ever did.

Q. Where did you burn any lime out of marble?

A. I have been burning it more or less for 30 years; since I have been in the business. When I wanted to make lime, I cut marble and burned it.

Q. Is that merchantable lime?

A. I think it would be.

Q. Have you had anything else to do with the lime business?

A. No, sir. I think I can tell exactly the quality of heat lime contains, and that is as much as the men here know.

Q. Now, are you a chemist?

A. I am, so far as that is concerned.

Q. When did you learn that?

A. I learned that many years ago.

Q. Did you ever test lime?

A. Yes, sir.

Q. When and where?

A. Very often.

Q. Where?

A. I use lime to make cement. It requires the very best lime, and you do it with the white of an egg. I always had to use cement, and consequently I had some practice and knowledge of lime.

Q. Now, you have been an Inspector since April? Were you ever an Inspector before?

A. No, sir.

Q. And what was your object in being appointed Inspector of Lime?

A. My object was the same as any other man in getting an appointment.

Q. What was that?

A. My object was to make a living.

Q. Are you not still in regular employment?

A. I am at times. Sometimes I have been out of employment and sometimes in employment.

Q. Is there any other Inspector of Lime in Boston?

A. I think there is, — Ebenezer Curtis; I never seen him.

Q. Have you made any effort to consult with him as to what the practice was?

A. No, sir, never have.

Q. But he has been an Inspector before?

A. Yes, sir, but —

Q. You never took any particular pains to find him out?

A. No, sir.

Q. Will you tell the gentlemen of the Committee where the lime comes from that is sold in this market?

A. I suppose three-fourths of it comes from Maine.

Q. Will you describe a cask that contains that lime?

A. Yes, sir, as nearly I as can. The statute calls for a cask that is made in a workmanlike manner.

Q. Describe the cask that comes from Maine, first.

A. It is a cask with eight hoops, a poorly shaped cask; 25½ inches is about the length of the staves, as near as I can measure it, or at most 25½; allow me to correct myself, — It will average, as near as I can average them, about 15½ inches across the head.

Q. Have you measured between the chimes exactly?

A. No sir.

Q. Then, what does the law say about measurement between the chimes?

A. I know it cannot be as long as the law requires, because it isn't as long outside.

Q. Have you ever measured between the chimes, as the law requires?

A. No, sir.

Q. Will you swear it isn't 16 inches?

A. It is 15½ inches, as I said.

Q. How much between the heads?

A. The law calls for 26½ inches between the heads. It is impossible for them to be full size.

Q. I ask you to give the exact measurement?

A. It is impossible to give the exact measurement, because the heads are not equal to the thickness.

Q. Is it 26½ inches between the heads?

A. No, sir.

Q. What is it between the heads — the average barrel?

A. I should think it not over 25½ inches.

Q. You say you seized these casks that were not of sufficient length. Did you inspect them?

A. I could not inspect it, because they would not allow me to inspect them. How could I open a cask and see between the heads?

Q. But you have seized eleven or twelve hundred barrels because they do not conform to the law of Massachusetts?

A. Yes, sir.

Q. Will you tell how and in what they do not conform to the law of Massachusetts, and what is the measurement of those barrels?

A. Yes, sir. I have measured them, and allowed for a fair bilge. Those casks won't hold over twenty-three gallons, and the cask that the law calls for will hold twenty-eight and a half gallons at a fair gauge. They are five gallons short.

Q. Do you know what the Maine cask is?

A. I know it calls for a stave thirty inches in length, and they have furnished one twenty-nine and a half. The law calls for seventeen inches between the chimes and across the head, and it isn't over fifteen and a half, and that is a liberal allowance for it. They call it sixteen, but I cannot make it fifteen and a half. The law calls for ten hoops, and they only got eight. They are so made that there is just enough bilge on them to keep the hoops

from falling over. Some are not more than two-thirds filled with lime when they get here.

Q. Are you prepared to swear, sir, that the average barrel from Maine don't average sixteen inches between the chimes?

A. Yes, sir; I think I can.

Q. But I am asking you if you are prepared to swear so?

A. Yes, sir; not over fifteen and a half.

Q. Well, now, how did you measure them between the heads?

A. I tell you it was impossible to measure between the heads, because it was impossible to do so; because they denied me inspection. Consequently I never tried one officially between the heads.

Q. Never tried one between the heads?

A. No, sir.

Q. Three-fourths of all the lime that comes into the market are made in that kind of a cask and imported. Now, come to the other kinds of lime, Mr. Higgins. What other kinds of lime are sold in Boston?

A. There is a lime coming here from the western part of the State.

Q. What kind of a cask does that come in?

A. It is a good, nice cask. It is not according to law.

Q. How is that cask?

A. It is half an inch too small across the head.

Q. It is about the same size as the Maine cask?

A. It is a great deal larger. It has a better bilge upon it.

Q. Does it hold more than fifty gallons?

A. No, sir. It doesn't hold twenty-eight gallons.

Q. What is the length of that cask?

A. About the same as the Maine.

Q. How long between the chimes?

A. It is sixteen and a half inches.

Q. And that has four less hoops than the Massachusetts law calls for?

A. Yes, sir.

Q. Is there any lime manufactured in Masachusetts sold here?

A. That is all, except one small lot that I found in Charlestown, used for chemical purposes at the gas-house and State prison.

Q. Where does that come from?

A. From Vermont.

Q. What sort of a cask is that?

A. It is something like the Western cask.

Q. Or the Connecticut cask?

A. Yes, sir.

Q. What sort of a cask is the Western or Connecticut cask?

A. It is a very nice cask.

Q. Does it conform to our law?

A. It does not.

Q. Well, there isn't a cask of lime made in Massachusetts or imported from Vermont or Connecticut that conforms to the Massachusetts law?

A. No, sir.

Q. You haven't seen one since you have been Inspector of Lime?

A. No, sir.

Q. Then I will ask you this question: Do you know the number of barrels sold in Boston?

A. I do not, sir.

Q. Have you any approximate estimate?

A. Mr. Ingraham told me he sold 365,000 casks of lime.

Q. Of the Cobb Lime Company?

A. Yes, sir.

Q. There is other lime made besides that?

A. Yes, sir.

Q. I suppose there are three-quarters of a million casks sold in Boston?

A. I don't know. The Alderman would know better than I do.

Q. Have you ever looked at the quality of lime?

A. Yes, sir, I have some.

Q. Whose have you examined?

A. I have examined both as near as I can.

Q. What lime?

A. Some of the Maine lime, and also Western lime. I thought the Maine lime was better lime.

Q. Now, these three seizures you have made have been of Maine lime?

A. I don't know, sir; I suppose they have.

Q. How often have you examined the lime?

A. I have examined it quite frequently in buildings. I have been examining buildings since I got this office, and fortifying myself with evidence in case I should be called upon.

Q. Have you been in any buildings where you could see the cask itself?

A. Yes, sir, so I could see into them.

Q. Haven't you seen an empty cask anywhere?

A. Yes, sir; lots of them.

Q. Why did you say you had not examined a cask between the heads?

A. Because I knew sufficiently they were away from the law without measuring them.

Q. Why didn't you measure the empty cask when you saw it?

A. I never felt like doing it.

Q. Now, has anybody asked you to prosecute anybody else?

A. I have been told by masons to prosecute persons.

Q. Name them.

A. Mr. James Ryan, of Charlestown.

Q. What did he tell you?

A. When I first got my appointment —

Q. Is he a friend of yours?

A. He is.

Q. Did you tell him about the appointment?

A. I told him I was made an Inspector of Lime.

Q. He told you you had better prosecute?

A. He told me the barrels were partially filled, and it was necessary that they should have more; that the people needed protection.

Q. What does Ryan do?

A. He is a practical mason.

Q. Do you know his address?

A. He lives on Everett street, in Charlestown. He owns his own house and lives there.

Q. Where does he carry on business?

A. In Charlestown.

Q. He told you generally you had better prosecute?

A. He told me that they ought to be prosecuted, and that people had been robbed. If you want to go into an investigation of that kind, I will furnish plenty of them.

Q. Who else asked you to prosecute?

A. I don't know.

Q. Do you remember anybody except this friend Ryan?

A. Yes, sir.

Q. Name one.

A. A present member of this council, — John Kelley.

Q. Did he tell you to prosecute?

A. He said they ought to be put through.

Q. Is he a friend of yours?

A. I meet him sometimes.

Q. Do you live in his ward?

A. Yes, sir. (?)

Q. How did he happen to tell you that?

A. I told him I was elected an Inspector of Lime.

Q. And he told you you had better put them through?

A. Yes, sir.

Q. Anybody else?

A. I don't believe in the whole course of my official existence that I told more than half-a-dozen men that I was Inspector of Lime. Even the men who signed that petition told me the casks were not right. Mr. John Leighton said they were not right. Mr. Whidden and every man on it knows that. Every mason I have met with, excepting solely Mr. Whidden, has said the lime was not what it should be with regard to the quantity of lime that the cask contained.

Q. Then James Ryan and John Kelley told you to put them through — one said "Prosecute," and the other "Put them through"?

A. Something of that kind.

Q. Now, tell me somebody else?

A. I don't remember anybody else, now.

Q. Do you know that anybody has made complaint against any dealer?

A. No, sir.

Q. Your memory carries you back to last Friday pretty well, when you were before the Mayor?

A. Yes.

Q. Do you remember my asking you if you remembered of anybody asking you to prosecute?

A. No, sir; except the putting through, and I believe I gave some names.

Q. Now don't you remember that Mr. Kelley thought the cask was not what it should be?

A. No, sir, I don't remember it.

Q. Did anybody besides Ryan ask you to prosecute anybody?

A. I believe he is the only one of them. But, as I said to you before, I have never spoken to a mason about the matter but he acknowledged something ought to be done; but they did not tell me to prosecute.

Q. Now, has anybody made complaint to you, as Lime Inspector, as to the quality of any lime sold in this year 1877, — complaint against any quantity of lime or anybody selling lime?

A. As I told you before, I don't believe half-a-dozen masons and plasterers knew that I am Inspector of Lime until last month. They didn't know whether I was Inspector until I made a seizure.

Q. The question was, has anybody made any complaint against anybody selling lime this year to you in your capacity of Inspector of Lime?

A. That is, has anybody made complaint against any person?

Q. Yes, sir.

A. No, sir.

Q. Has anybody, seller or purchaser, called for any inspection of lime?

A. Not to me.

Q. Have you heard, either during the time you have been Inspector, or before, that anybody wanted lime inspected in Boston?

A. I don't know why we shouldn't have lime inspected in Boston as well as elsewhere.

Q. But I asked you that question.

A. The people don't know that the law calls for inspection, and didn't know that they had any inspector.

Q. Have you any other motive in prosecuting this matter except the gain to you?

A. I have an obligation, the same as his Honor the Mayor or anybody else.

Q. What is that?

A. A sworn duty to perform.

Q. And you were appointed in April and didn't do anything till September?

A. I did some, — I notified them.

Q. Only four firms?

A. They all know'd it. They all know'd an Inspector was appointed.

Q. Suppose you had seized all the barrels of lime in the city of Boston?

A. They will all be here and be used soon, — every barrel I seized. It will not make lime any less in market.

Q. But they give you a bond, do they?

A. Yes, sir.

Q. I suppose this man who gave a bond the other day, — he gave a bond of $1,100?

A. I don't know the first thing it is for.

Q. You know you haven't got the lime?

A. I know Mr. Carr gave a bond, but how much it is for I don't know.

Q. But you know that a bond was given for the return of the lime or its equivalent?

A. I know the bond given is equivalent for the lime.

Q. Now, do you allow that man to sell that lime again?

A. I cannot prevent it. I don't think the law will allow me to prevent it, because the bond covers that lime.

Q. Then what you mean is this: If you seize all this lime and get a bond from everybody, the lime may be sold in the market just the same?

A. That will be one result.

Q. That is all you care for?

A. You can impute any motive to me, or give any construction to my action.

Q. (By Mr. Brinley.) Will you give us the cubic contents of a Maine cask? I want to try and get this a little more accurately than before.

A. I have not measured all the heads in the city, because I thought it unnecessary, as they were too small.

Q. You know the difference between the cubic contents of the two barrels of Maine and Massachusetts?

A. Yes, sir, I do.

Q. What is it?

A. The Massachusetts barrel calls for a cask 28½ inches, and it calls for a 50-gallon cask for Massachusetts.

Q. The law doesn't call for it.

A. I was telling you the standard called for is two hundred and thirty-one cubic inches. If you multiply half the circumference by half the diameter, or multiply the mean diameter by seventy-eight fifty-four, it will square it; and it can be done in many other ways. Then multiply that by the length and it will give the number of cubic inches, and divided by thirty-one, will give the cubic contents. I allow for the bilge, and find the mean diameter.

Q. (By Alderman Fitzgerald.) You say the area of a cask multiplied by the length will give the solid contents?

A. No, sir. I obtain the mean diameter, and then halve that, and then square that, and multiply by the length. That is the only rule laid down in Mensuration. I went through the rule once, and ought to know something about it.

Q. (By Mr. Brinley.) You have posted yourself greatly, since the last hearing before the Mayor, about lime and casks. Did you know as much then?

A. Yes, sir, I knew as much then. If you had asked me for the information then I would have given it.

Q. Didn't I ask you for the information, and you said wait till you come into court?

A. No, sir.

Q. Didn't you say it would take an hour or two to find out the cubic contents of a barrel?

A. No, sir. I was a little excited.

Q. Why excited?

A. I am naturally a little nervous. I felt a little nervous about the action of the Mayor.

Q. What did he do?

A. I will tell you. The lime-dealers went up to him and had their say.

Q. I want to know what he did to make you excited?

A. He allowed the lime-dealers to come up and tell him their story; and to place me on an equal footing he should have invited me up and let me tell my story. He sent word to me to come up at 12 o'clock, and not telling me there was an investigation at all.

Q. Have you the note sent by the Mayor to you?

A. No, sir; that is the purport of it.

Q. To come alone?

A. He told me to come there. He didn't tell me anything about it, or that Mr. Collins was going to be there. Had he told me I would have been represented by counsel.

Q. Why did you need counsel in this case at all? Here you were, going on with your duties as Inspector; why need counsel?

A. Why does anybody need counsel?

Q. I ask you why, when calling upon the Mayor of Boston to state your case, should you need counsel?

A. I found that the lime-dealers were going to have counsel, and it was more necessary for me, they being many and I one.

Q. You had counsel, and appeared before the Mayor. Now, where did the Mayor, in one iota, hurt your feelings, and treat you with the utmost partiality?

A. I thought it not a fair action asking me to come up (from his private secretary) and come and see him. I heard the lime-dealers were there the day before, and I supposed he wanted to hear my story.

Q. Then as to the proceeds of this seizure, what disposition is to be made of them? What do you answer to that?

A. I don't know, sir.

Q. What is the disposition you make of the proceeds? Suppose you libel a quantity of lime under Section 24, where it says if any lime is sold or exposed for sale through libel, the sale is forfeited to the Inspector. Is there anything said about giving bonds?

A. No, sir.

Q. Do you know?

A. Certainly; my attorney can state that.

Q. I am asking you.

A. I can delegate him. He is counsel for me.

Q. You are acting under Section 24. If a cask of lime is sold —

A. I understand that perfectly. I thought you meant the other one. The other one I don't understand, Section 153. I understand that perfectly, and I think I can answer any question about it.

Q. (Mr. Brinley read the section referred to.) What do you understand by the forfeiture?

A. I understand it changes hands; the moment I seize it, it becomes my property.

Q. Now, what do you understand you are to do with the proceeds of the forfeiture?

A. After the expenses of the Court have been paid, I suppose the law gives it to me. That is what the law reads. I should put it into my pocket, and then I might use it for charitable purposes, if I felt so disposed.

Q. Now, suppose these gentlemen don't give bonds, in that case you mean to say you would sell the lime and pocket the proceeds?

A. I should do what the law allowed me.

Q. (By Alderman Fitzgerald.) Put it where it would do the most good, I suppose?

A. Yes, sir.

Q. (By Mr. Brinley.) What do you understand by this dollar and a half forfeiture?

A. I understand that if I get proof that those lime-dealers have been selling lime since I notified them, that I can bring a civil action and get one dollar and fifty cents for each cask so sold.

Q. Besides the forfeiture? How did you understand that?

A. Picked it out myself.

Q. Have no Attorney?

A. The law is very plain, indeed.

Q. After you stated to the Mayor, or after the Mayor requested you not to proceed against the dealers of Boston, as it would retard business, and advised you, why did you the next day make an attachment and seizure?

A. Because I felt like it.

Q. Only because you felt like it?

A. Yes, sir; because I had made up my mind to make a seizure.

Q. (By Alderman Fitzgerald.) You mean to say, when you found that the Mayor didn't treat you fairly, you determined to make a seizure?

A. Yes, sir; to show him that he had no control over me what ever, except to express an opinion about the matter. And he said things which I didn't think exactly right.

Mr. Brinley. Now, this man comes here and tells what is absolutely false, which is this: that the Mayor treated him anything but right.

Mr. Avery. He explains his reason.

Mr. Brinley. I want him to state how the Mayor might be wrong in requesting him to suspend further action, and why he didn't treat him the same as the rest of us.

The counsel discussed the matter briefly, and chairman said,

that from Mr. Higgins's stand-point and reasoning he might have thought the Mayor insulted him.

WITNESS. Yes, sir; I did.

Mr. BRINLEY. But if a man's reasoning is so obtuse and stupid that he cannot understand the difference.

Alderman FITZGERALD. As I understand him, the Mayor's secretary wrote a letter, requesting him to appear at a certain hour, and when he got there he found Mr. Collins and a large number of gentlemen, and he thought that was catching him short, and he felt indignant about it.

Mr. BRINLEY. The Mayor didn't know that our side was to be there at all.

Mr. COLLINS. It is proper to say that when we went there, we found Mr. Higgins and his counsel in consultation with the Mayor in both cases.

The CHAIRMAN. Everybody who knows the Mayor knows he is incapable of doing anything of that kind. Mr. Higgins must have got a wrong impression.

Alderman FITZGERALD. I have no doubt he thought he was "a Daniel brought to judgment."

Q. (Mr. BRINLEY.) You said when you went to the dealers they refused to allow you to inspect the lime. Who refused to allow you to inspect lime?

A. Mr. Emerson.

Q. Did he refuse?

A. He did what is tantamount to a refusal.

Q. We are not drawing inferences. What did he say?

A. He said that he would have to pay for the inspection, and he wouldn't pay for the inspection of it, and if anybody wanted any lime inspected they might pay for it.

Q. Did he refuse to allow you to inspect the lime?

A. You may call that a refusal.

Q. And you consider that a refusal?

A. I do, sir.

Q. Have you attached any of the Western dealers' lime?

A. No, sir.

Q. Why?

A. All the stock I could find in Boston when I looked for it was twenty-two barrels.

Q. Did you attach it?

A. No, sir.

Q. Why not?

A. Because it was not worth my while.

Q. Not money enough in it?

A. Not enough to make an attachment of.

Q. Now I want to ask one more question. Did you attempt to seize or attach any lime Saturday?

A. Last Saturday?

Q. Yes, sir.

A. No, sir, I was in the shop all day marble-cutting.

Q. Did you have any agents out?

A. No, sir.

Q. Did your counsel have any agents out?

A. No, sir, I have no agents; and I never attempted to make a seizure last Saturday.

Q. Did you send any man to South Boston last Saturday?

A. No, sir.

Q. No day?

A. No, sir.

Q. Never sent any one to Brighton?

A. Never. I never sent a man anywhere, or looked after lime where I didn't go myself.

Q. Now one more question. What do you propose to do hereafter in carrying out what you consider your duty under the statutes? You have attached 1,100 barrels of lime. You say that dealers may go on and sell it by giving bond. Do you propose to attach every cargo of lime that strikes this port because the casks are made somewhat different from the statutory requirements of this State?

A. Well, sir, I —

Q. It is a fair question before the Committee.

A. Yes, sir, and I intend to answer it when I understand it. If this City Government don't want me to go on prosecuting those people, I shall not do it; otherwise I shall go on attaching until the Legislature meets. But if I have an expression from this City Government I shall obey their voice.

Q. So that your answer is this: If both branches of the City Government request of you to suspend further action until the next Legislature meets, so that the law may be changed, you will do so?

A. Yes, sir.

Q. Now I want to understand you. You say you are responsible to yourself and no one else, in making attachments. When you answered the Mayor the other day and said you were responsible to yourself, you meant so far as he was concerned, and if you had any request from the City Government you would stop further action?

A. I don't remember having said so.

Q. By the way, you denied stating to the Mayor that you would suspend and not go on until you had seen him?

A. I denied it. If the Mayor stated that, he misunderstood me.

Q. But you say if the City Council ask you to suspend operations until the Legislature meets, you will do so?

A. Certainly I should. I should be insensible not to do it.

Q. You will remain in office and still be the Inspector of Lime?

A. Yes, sir, if the City Council assume the responsibility.

Q. Now, there are these seizure bonds given by the respective parties whose lime is seized, — now, we would like to ask this further question: Whether you have any objections, as Inspector of Lime, to return those bonds to the respective parties, I ask you, so far as you are concerned?

A. Ask my counsel.

Q. No, sir; he is not under cross-examination.

A. No, sir.

Q. I ask you if you will return the bonds to the various parties?

A. And not bring it into court?

Q. No, sir; I don't mean that.

A. What will the effect be of giving the bonds back and not bringing it into court? If you want me to answer that, my attorney will sue the bonds.

Q. (By Ald. FITZGERALD). What do you consider the duties of an Inspector of Lime?

A. Well, sir —

Q. And for what an Inspector of Lime is appointed by the City Council?

A. I suppose the law has something to do with it, and that it was created for the purpose of protecting the people.

Q. Against what?

A. Against fraud on the part of the manufacturer or dealer in lime.

Q. In other words, the object of the appointment of Inspector of Lime is that buyers should not be defrauded?

A. Exactly, sir.

Q. That the amount which is stated shall be in a cask of certain dimensions, which can be easily found by measurement, shall be there?

A. Yes, sir.

Q. And that they shall not be defrauded?

A. Yes, sir.

Q. Now, you consider it your duty, as you say, to seize all lime which you find in casks not of the dimensions prescribed by that statute?

A. Yes, sir; if I had done my full duty I should seize the whole of it.

Q. You found that to be your duty?

A. Yes, sir.

Q. You are very zealous in its discharge, judging by the evidence?

A. But I had been there four months and had not made a seizure.

Q. But of what use can it be except to you, as seizer of the casks? What good could you do? It simply gives you a bond of $1,100 or $2,200, and after paying expenses on the recovery of the bond the remainder goes into your pockets for charitable purposes. What earthly use is it for the City of Boston to have an Inspector of Lime, if you consider it your duty to make the seizure and have the bond running to you, and the lime returns to that man who sells it next day? Of what use is all the work you perform?

A. I will tell you, sir. In the first place, the lime comes here in quantities not uniform with the casks required. If the casks were uniform perhaps the Inspector would not be of so much consequence.

Q. I should like to ask you — and I want you to answer me — what earthly use your seizures have been except to yourself?

The object of creating an Inspector of Lime is not for your benefit, but for the public benefit, and you get your four cents for inspection. What earthly use has the seizure been to all the masons here, if those who bring lime from Portland and Rockland can sell it over again after you get your bond?

A. If I could see no further than the present seizures it probably wouldn't bring any good to the public. But by making the seizures wouldn't this stop the bringing of lime here that —

Q. But you said you had seized the goods, and after they had given you a bond they can sell it and you could sue the bond?

A. I don't know. You want to make me acknowledge that all this inspection is not according to law.

Q. I don't want to make you do anything. I am not like the Mayor, whom you think wants to make you to do nothing. I merely want you to answer the question.

A. I don't understand you.

Q. I say, what use have all these seizures been, so far as those casks are concerned? With the liquors confiscated, they could not be sold again. Under the way in which you act, you say they can sell them again after giving bond?

A. Yes, sir.

Q. Are they taken back to the same place where they were seized?

A. They are not taken out of the place, — never touched.

Q. And they remain there?

A. Yes, sir.

Q. Do you watch them?

A. I had a keeper on them.

Q. I mean after the bond is given?

A. No, sir; I had nothing further to do with them.

Q. Have you been near the parties since?

A. No, sir.

Q. And they may have sold them, and people may have been defrauded?

A. I don't know but they may.

Q. Now, why isn't the seizure of 27 barrels of as much consequence to the public? You say it wasn't worth so much to you; why not so much as 600 barrels?

A. Well, sir, I considered it my duty to seize those violating the law to the greatest extent.

Q. But you say you have a sworn duty to perform, and seem to stand upon that. Why don't you seize those? was the question asked you; and your answer was, you didn't think it worth while to seize so small a quantity.

A. That is true; that is just what I meant.

Q. Now, in your consultation with lawyers, did you take the trouble to consult the City Solicitor?

A. I did, sir.

Q. What advice did he give to you?

A. He didn't give me any advice. He told me I could libel the lime.

Q. Did he give you any advice?

A. I don't think he did.

Q. Did you go to the Mayor and ask any advice as to how you should proceed?

A. No, sir; I went to the Attorney-General of the State, Mr. Train.

Q. What has he to do with that?

A. I thought he had some little to do with the laws of the Commonwealth.

Q. Who was your chief adviser up to the present time in what you have done?

A. Up to the time I went to work to make seizures I consulted Mr. James W. O'Brien, of the firm of Sweeney & O'Brien. I consulted him, and he posted me in regard to the law. He consulted other lawyers and found out himself about it. He being living in Charlestown, and I being acquainted with him, I consulted with him.

Q. He merely gave you what the law was?

A. Yes, sir.

A. I don't speak about that; whom did you consult about the City Government as to the seizures?

A. No one, sir; I did not consider it necessary.

Q. Did you consult anybody?

A. I consulted lawyers.

Q. Why didn't you consider it necessary to consult the Mayor, and the City Solicitor, who is the law adviser of the city, as to the advisability of doing those things?

A. I did consult him.

Q. It is acknowledged by the lime-dealers that the lime-casks of Maine do not conform to the statute of Massachusetts, and —

Mr. BRINLEY. — That is a matter for the Court to decide as to the State of Maine cask.

Q. (By Ald. FITZGERALD.) Perhaps you have been — as I have no doubt you have been — acting conscientiously in this matter. Why didn't you ask the Chief of Police, — because it is police duty? Why didn't you consult parties most interested in the City Government, which appoints you?

A. Well, I never knew that an Inspector, after he got an appointment, had to consult anybody.

Q. That he could do anything he pleased?

A. Yes, sir. I supposed they are appointed to do their duty, and he didn't have to go to the Mayor and ask for instructions to carry out the law. I don't believe in an Inspector going to the Mayor for that.

Q. You never heard of any Inspector seizing so many barrels?

A. I never heard of any one having a chance to seize so many.

Q. (By the CHAIRMAN.) You presumed the City Government has the oversight of your action?

A. Yes, sir. They can make or discharge me.

Q. Yes, sir.

A. And I shan't cry when it is done.

Q. (By Ald. FITZGERALD.) You consider it your duty to inspect every lime-cask brought here?

A. Yes, sir.

Q. And are obliged by the law to do it?

A. But there is great trouble in doing it.

Q. If you don't do it, what is your remedy? Did you find out?

A. But I could not do it.

Q. There is another way prescribed by the statute besides libelling it.

A. I don't know of any other way, except libelling it, if sold without inspecting it. It is a very difficult thing to find out whether it has been inspected.

Q. Have you ever consulted anybody connected with the City Government about those parties who refused to allow you to inspect their lime-casks, when you knew they had a quantity in their stores?

A. No, sir. I never did. I have not. I didn't think it necessary for me to do so. Had I thought so, I should have done it.

Q. You knew they had been selling four months without your inspection at all?

A. Yes, sir; and so long as they had casks to conform to the law I thought it no more than fair to give them a chance to change the gauge to conform to the law.

Q. (By Mr. BRINLEY.) It seems to me Mr. Emerson stated he didn't want his lime inspected because he couldn't afford to do so?

A. I don't know. He said when he wanted it inspected he would call for me.

Q. What did you understand by that?

Alderman FITZGERALD. He understood that he didn't want him around, and that if people buy lime from those men they put their foot in it.

Q. (By Mr. BRINLEY.) Whether it didn't occur to him that there was some loophole in the statutes for the dealers to avoid seizure, and that they had taken advice. When you saw the City Solicitor, what did he say?

A. He told me I could libel the lime, and then go get a good lawyer.

Q. What else?

A. That is about all. That is what the Attorney-General told me.

Q. You asked him whether you could libel it?

A. He read the law all over, and told me about what I could do about it.

Q. Who is the other attorney you saw afterwards?

A. I saw Mr. O'Brien, and in consulting attorneys I saw Mr. Charles Robinson, Jr.

Q. Who is the last attorney you saw?

A. Mr. Swift; and Mr. Avery is the last man.

Q. He has been the consulting attorney in making the seizures?

A. Yes, sir.

Q. (By Alderman FITZGERALD.) Every lawyer told you you had a right to do it?

A. Yes, sir.

Q. But it isn't the question of legal right. It is, by whose advice you do this?

A. I acted mostly upon my own judgment, after I found out from those parties what the law was.

Q. You consulted no one at all?

A. Yes, sir. I consulted a lawyer; but no one by advice to control my actions.

Q. You consulted lawyers as to what the law was; as to whether you would act legally or illegally in seizing those casks. But the question I asked was, did you take advice of anybody as to the seizures?

A. No, sir, I don't think I did, except the lawyers.

Q. The lawyers didn't tell you to go and seize, did they?

A. No, sir.

Q. They told you the law will protect you; but did they advise you to do it?

A. No, sir. I went on my own account to do that.

Q. (By the CHAIRMAN.) How do you know about the inequality of the quantity of lime?

A. Because I have heard it from parties buying it.

Q. You say you never inspected any lime?

A. No, sir.

Q. Then, of course, you have no knowledge of the unequal quantities?

A. No, sir. In that case, if there was a hearing, I should have to bring people here to prove it. I could bring plenty of people here to prove it.

Q. (By Alderman FITZGERALD.) How many barrels have you inspected?

A. None, sir; not one.

Q. You didn't inspect those you seized?

A. Yes, sir; I measured them.

Q. Then your office is not a lucrative office, except on large seizures?

A. I am considerable money out of pocket on it.

Q. (By Mr. BRINLEY.) Did you ask Mr. Carr for the right to measure the lime before seizing it? You say you asked Mr. Batchelder for the right to inspect his lime?

A. I told Mr. Batchelder I should expect to inspect the lime hereafter.

Q. What did he say?

A. He told me he didn't want it inspected; that the law was made for Massachusetts lime.

Q. So you never asked Mr. Carr for the right to go into his sheds and inspect his lime. Now, Mr. Carr has stated that he never heard anything about the seizure until you made the seizure; so you never asked him for a right to inspect the lime?

A. I was talking with his partner two weeks before it.

Q. And he said he didn't want it inspected?

A. No, sir. He said it wasn't made for Maine lime but for Massachusetts lime.

Q. Did you raise any question in your mind about the right?

A. No, sir; I had that in my mind before.

Q. Did you say anything to Mr. Hobbs?

A. No, sir; I never see him till I see him the next day. But I left the same word there as I left at the others, that they should have their lime inspected.

Q. Then did you ever go to inspect it and be refused?

A. No, sir.

Q. (By Alderman FITZGERALD.) You say that scarcely a cask that comes here from Rockland or elsewhere is in accordance with the provisions of the statute?

A. I don't think there is at the present time — not any one of them.

Q. Did you think it possible, by any seizure, to make them conform to the statute?

A. It is the only way.

Q. I mean in what way will they do it?

A. They will find it unprofitable not to send lime over in quantities that don't conform to the statutes.

Q. You mean to say men make casks in Massachusetts different from the other portions of the country?

A. I don't know how they make casks down there. They make different sizes of them entirely.

Q. Do you think they have any desire of evading the statutes of Massachusetts?

A. I don't know.

Q. But do you think the object and intent is to evade the statute and sell lime wilfully for the purpose of making more profit on it than they would to have them in accordance with the statute? Or do you think that the casks are made of a different size for the purpose of being sold everywhere, and not particularly in Massachusetts?

A. I don't know but what they are made uniform to be sold to everybody.

Q. And not for the purpose of evading the statute of Massachusetts?

A. But the statute of Massachusetts isn't like the statute of the State of Maine, and they want to change our laws for their goods, instead of them making their goods conform to our laws.

Q. But the statutes were formerly alike?

A. I presume so.

Q. They have changed theirs and we have never changed ours, Now, sir, suppose that the statute of Maine prescribes that the casks shall be made one way, and the Massachusetts statute prescribes another way, do you suppose it possible to make casks down there and import the lime here without violating a law?

A. I don't know, but —

Q. Is it possible, under the existing law to-day, for a man in Maine to sell lime in the State of Massachusetts without violating either the law of Massachusetts or of the State of Maine?

A. Well, sir, without they are more particular in Maine than in Massachusetts, it don't make much difference.

Q. But I only speak of Massachusetts.

The CHAIRMAN. Suppose they had an Inspector in Maine like Mr. Higgins, wouldn't they seize every barrel in Maine to make it conform to the statute of Maine? That is what the question of Ald. Fitzgerald means.

Ald. FITZGERALD. No, no. I mean (to witness) is it possible for the Legislatures of all the States to make a uniform statute in reference to casking lime? Isn't it utterly impossible for the lime-dealers in Maine to ship a cask of lime in Maine to Boston without violating either the laws of Maine or Massachusetts?

A. I am unable to answer that question.

Q. You are Inspector of Lime here?

A. I don't know what the duty is in Maine.

Q. Don't know what the duty is? I have no doubt you would seize them all if you were down there. Do you think those men intended to violate the law?

A. I know they were all violating the law.

Q. We all know that there was a technical violation of the law. But do you think it was such a gross and open violation of the law that they could prevent it if they want to?

A. I think if they refuse to purchase only lime here that is required by the statute of this Commonwealth, I think that would get it.

Q. How? From the other places?

A. I mean if the dealers demanded a full cask of lime, according to law, that they would get it.

Q. How about the casks? Don't the staves come to the lime factories of a certain length, and wouldn't it be a great hardship if they had one length in Maine, and one in Massachusetts, and one in Connecticut?

A. I don't know.

Q. I simply put it to you as a sensible man, whether, under the law as it exists to-day, it wouldn't have been much better for you to inform the Mayor — you thought it not worth your while; but I will ask you whether you don't think it would have been better to inform the Mayor about this discrepancy between the statutes of Maine and Massachusetts, and find some means of rectifying it, when those people could not do it, especially when those people feel that they had no intent, wilfully and openly, of violating the statutes of Massachusetts?

A. Had I thought it any part of my duty to consult the Mayor in regard to it, I should have done so. But I thought the Mayor had nothing to do with it, and I didn't consult him.

Q. But why did you think it more important to consult lawyers outside than to consult the very persons who elected you to office?

A. I think that you are giving that a very wrong application altogether about my duty, that I should go the Mayor and Aldermen, or any other city official.

Q. I simply say that they are supposed to be more interested in the affairs of the city than any other class of people — the City

Solicitor, the Mayor and others. Why should you think it of more account to go around to Mr. Robinson, and Mr. O'Brien, and others, as lawyers, and not come to the Mayor of the city, who, after all, is looked upon as the person having control of all the departments, and has an overseeing eye, and state to him this affair which has been troubling you for months, and been a great source of anxiety to you? Why didn't you come to the City Government?

A. If a policeman is going to make an arrest, would he come the Mayor?

Q. Yes, sir; if he was going to make an arrest, he would go to the Chief of Police or the Committee on Police, and to the Mayor, if it was an important arrest. I have not the slightest doubt about it at all, if it was an important case.

A. It never occurred to me that that was a part of my duty. It was an omission if it was so. I don't think it a part of my duty now to consult the Mayor.

Q. (By the Chairman.) Take another position in the matter. You say there isn't a barrel of lime in the City of Boston to-day that comes up to the requirements of the law?

A. It isn't brought here.

Q. You say the lime made in Western Massachusetts does not, and in Connecticut it does not, and that 99-100ths of the lime sold in Boston does not come up to the requirements of the law. Now, as Inspector of Lime, you know the City Council of Boston created you?

A. Yes, sir.

Q. Now, why could not you have communicated to the City Council and stated those facts, and asked for instructions before proceeding? The power that created you has power to instruct you, and unmake you. It would have been a very good thing, if you didn't want to consult the Mayor, to ask for instructions of the City Council, when you knew that every cask of lime in Boston is not up to the requirements of the law, and it would be a great detriment to business men and the public, and hundreds of laboring men, by any rash action on your part?

A. I never anticipated such action.

Q. (By Alderman Slade.) Unless everybody gave you a bond in full for all the property, men have a right to suppose that they couldn't sell it?

A. Yes, sir.

Mr. Brinley. But he had a right to take every barrel of lime in Boston if he had performed his duty to the letter. I would suggest to the Committee that they suggest the return of the bonds to the parties, as it would show general good treatment.

Alderman Fitzgerald. We cannot do it. It is a matter for the court and not for us.

The Chairman. If Mr. Higgins and his lawyer consent, the Committee would have no objection.

Q. (By Mr. Brinley.) Are you under bonds, Mr. Higgins?

A. No, sir.

Mr. Collins. There hasn't been a cask of lime shipped from

Maine for a week, and there is not going to be until the matter is settled.

The CHAIRMAN. I understood so. I understood there is one cargo waiting for this to be settled.

Mr. COLLINS. All the staves and hoops and everything for the casks for the year are already made. There are about 3,000,000 barrels sold in Boston during the year. The Maine statute was changed to make a more convenient package, and they have been imported into Massachusetts for a generation or two. Until Mr. Higgins came along nobody required inspection. I have been informed by dealers in lime for 40 years that they never heard of an inspector of lime being called upon. The law is practically a dead letter, and would have been repealed or modified to conform to the requirements of the age, if the discrepancy had been noticed. Every dealer was taken by surprise. A great many people are going to be injured very seriously by the inspection.

The subject was informally discussed for some time by the Committee and the Council on both sides, during which Mr. Brinley said a constitutional question had arisen, viz.: That Massachusetts cannot make laws prescribing the size of articles made in another State unless they are contraband goods. The law of Massachusetts makes it impossible to import lime from Maine; this hinders commerce, and becomes a matter for the action of the United States government.

Mr. COLLINS said that in Maine a barrel is obliged to be inspected before any lime can be put into it.

Mr. AVERY said that Mr. Higgins had done what he considered the law to be, and he had done nothing outside the law of Massachusetts. The petition comes entirely upon the matter of policy. Mr. Higgins is not arraigned for doing anything that he has not a perfect right to do, but for saying that the law upon our statute books shall be carried out. Mr. Avery also explained that between the time of the hearing before the Mayor and the next seizure he had had no opportunity to consult with Mr. Higgins; also that the latter undoubtedly understood the "suspension" that he agreed to consider was his suspension from office by the City Council — as suggested by the Mayor — and not the suspension of operations against the dealers.

Mr. AVERY asked for an adjournment for the purpose of offering testimony as to the possibility of supplying the lime trade with lime from the West which conformed to the statute of this State; but the Committee decided that that would be discriminating in favor of one section against another, and it would be inexpedient for them to go into the subject.

This closed the hearing.

CITY OF BOSTON.

City Document No. 79.

ANNUAL REPORT OF THE CITY REGISTRAR OF THE BIRTHS, MARRIAGES, AND DEATHS, IN THE CITY OF BOSTON, FOR THE YEAR 1876.

To the Honorable City Council: —

The undersigned herewith respectfully submits his annual report of the births, marriages, and deaths in the City of Boston during the year 1876.

Population.

The yearly increase of the population of Boston during the decade commencing with 1810, according to the U. S. census, was 2.81 per cent. In the following decennial period the growth had increased to 4.18 per cent., while in the succeeding decade the ratio had fallen slightly, the increase being 3.84 per cent. In the next period, between 1840 and 1850, the population had risen to 6.10 per cent.; falling, in the following one, to 2.99 per cent., but a shade higher than the increase between 1810 and 1820. It will be remembered that, in the year 1855, a portion of Dorchester was annexed to Boston, becoming a part of Ward 12, thereby increasing the population to some extent in that year.

Examining the varying condition of the population as shown by the State censuses, commencing with 1855, and ending with 1875, it will be found that the rate of increase, in each of the decennial periods embraced by the years named, had fallen still lower. During the last decade the population of Boston was largely increased by the annexation of Roxbury, Dorchester, West Roxbury, Brighton, and Charlestown. Thus, the yearly increase, between 1855 and 1865, was only 2.39 per cent., and between 1865 and 1875 it was 2.73 per cent., a slight improvement. During this last period the increase of the population of Boston, exclusive of the recently annexed towns, was only 1.65 per cent. Adopting the rate of increase between 1865 and 1875 for the whole city, the population of Boston in 1876 should be

351,247. Considering the depressed condition of business affairs, the above estimate is believed to be as high as the facts will warrant.

BIRTHS IN 1876.

The birth record for 1876 shows the addition of 10,773 to the living population, — of 5,553 males and 5,220 females. The number of births recorded in 1876 was 247 less than were recorded in the preceding year, and 944 less than were registered in 1874. This shows a diminution of the birth-rate in the two years of more than 8 per cent. The ratio of births to population is seen, therefore, to be 1 in 32.60. If the still-births (491) are added to those born alive, the ratio will be 1 in 31.18. In no year, for a long period, has the birth-rate been so low as in 1875, with the single exception of the year 1865, when it was 1 in 35.91. This exception will be accounted for by the circumstances resulting from the civil war, the effects of which did not cease to be active for several years afterwards.

The annexed table shows the excess of births over the deaths in each year, from 1849 to 1875 inclusive. The table commences with the first year of the revised system of birth registration. For nearly fifty years immediately preceding 1849 the practice of birth registration had been almost entirely neglected, scarcely any births having been registered during the whole period.

YEARS.	Births.	Deaths.	Excess of Births over Deaths.	YEARS.	Births.	Deaths.	Excess of Births over Deaths.
1849	5,090	5,079	11	1863	5,276	4,699	577
1850	5,295	3,667	1,628	1864	5,356	5.111	245
1851	5,363	3,855	1,508	1865	5,355	4,541	814
1852	5,337	3,736	1,601	1866	5,557	4,379	1,178
1853	5,629	4,284	1,345	1867	5,914	4,421	1,493
1854	5,719	4,443	1,276	1868	7,400	5,519	1,881
1855	5,843	4,085	1,758	1869	7,428	5,523	1,905
1856	5,960	4,253	1,707	1870	8,126	6,098	2,028
1857	5,920	3,958	1,962	1871	8,559	5,888	2,671
1858	5,666	3,840	1,826	1872	9,312	8,090	1,222
1859	5,967	3,738	2,229	1873	9,732	7,869	1,863
1860	5,893	4,390	1,503	1874	11,717	7,812	3,905
1861	5,817	3,965	1,852	1875	11,020	8,958	2,062
1862	5,343	4,120	1,223	1876	10,773	8,203	2,570

The whole number of births during the twenty-eight years ending with 1876 was 190,367, exhibiting a yearly average of 6,799. The total number of deaths during the same period was 144,524, showing an excess of births over the deaths for the whole period of 45,843, or an annual average excess of 1,637.

The number of births in each quarter is shown in the following: —

1ST QUARTER.	2D QUARTER.	3D QUARTER.	4TH QUARTER.
January 864	April 829	July 940	October 936
February 894	May 820	August 965	November 898
March 966	June 824	September 872	December 965
Total 2,724	Total 2,473	Total 2,777	Total 2,799

The fewest births in any one quarter occurred in the second, making 22.95 per cent. of the whole number; and the largest number in the fourth, making 25.33 per cent. In the preceding year the births in the same quarters made 23.41 and 25.89 per cent. respectively.

The following is a comparative statement of the births and deaths in the several wards. The deaths in the hospitals and other public institutions are omitted in the comparison: —

WARDS.	Births.	Per cent. of Births.	Deaths.	Per cent. of Deaths.	WARDS.	Births.	Per cent. of Births.	Deaths.	Per cent. of Deaths.
1	410	3.81	247	3.41	14 . . .	610	5.66	383	5.30
2	486	4.51	304	4.20	15 . . .	499	4.63	324	4.48
3	368	3.42	240	3.30	16 . . .	474	4.40	303	4.19
4	311	2.89	222	3.07	17 . . .	294	2.73	216	2.98
5	317	2.94	220	3.04	18 . . .	198	1.84	191	2.64
6	723	6.71	498	6.88	19 . . .	624	5.79	405	5.60
7	445	4.13	315	4.35	20 . . .	517	4.81	338	4.67
8	490	4.55	292	4.03	21 . . .	294	2.73	222	3.07
9	329	3.05	236	3.26	22 . . .	487	4.52	300	4.14
10	187	1.73	193	2.67	23 . .	472	4.38	196	2.71
11	308	2.86	218	3.01	24 . . .	455	4.22	271	3.74
12	437	4.06	384	5.30	25 . . .	198	1.84	107	1.48
13	840	7.79	614	8.48	Total .	10,773	100.00	7,239	100.00

An examination of the above table will be interesting to those who are familiar with the local characteristics of the several wards. It will be noticed that no less than 2,797 births (25.96 per cent. of the whole number) occurred in four wards, viz., 723 in Ward 6; 840 in Ward 13; 610 in Ward 14; and 624 in Ward 19. This large birth-rate, however, is confronted with a corresponding death-rate in the same wards, the mortality therein making no less than 32.41 per cent. of all the deaths outside of the hospitals and other institutions.

A marked contrast will be observed between the births and deaths in Wards 9, 10, 11, 12, 16, and 17. While the births in those six wards make only 18.83 per cent. of all the births (the population there making 23.43 per cent. of the entire population), the deaths make 21.41 per cent. of the mortality in the same localities. In Wards 6, 13, 14, and 19 the births exceeded the deaths by 893; in the six wards before noticed the excess of births over deaths was only 210.

TABLE I. BIRTHS IN 1876.—PARENTAGE.

Birthplaces of Fathers.	Birthplaces of Mothers.																								Totals.
	United States.	Ireland.	England.	Scotland.	B. A. Provinces.	Germany.	Italy.	France.	Spain.	Portugal.	Western Islands.	Russia.	Austria.	Sweden.	Norway.	Poland.	Denmark.	Turkey.	Switzerland.	Belgium.	Holland.	China.	Other foreign places.	Unknown.	
United States	2,916	337	80	21	300	14	3	3	..	2	..	..	1	4	..	..	..	1	2	1	2	1	3	4	3,695
Ireland	463	3,229	74	17	153	4	...	2	..	..	..	..	..	4	1	..	..	..	..	..	..	..	1	1	3,949
England	95	100	162	11	49	5	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	423
Scotland	32	26	12	58	37	...	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	166
Brit. Am. Provinces	244	138	31	7	400	1	1	2	1	..	..	..	..	2	..	..	1	..	..	..	..	..	..	2	830
Germany	140	37	13	1	14	409	...	7	..	..	..	1	..	2	..	..	..	..	4	..	4	..	2	...	634
Italy	9	4	1	...	1	...	100	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	116
France	22	9	...	...	6	9	...	12	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	...	59
Spain	1	1	...	...	...	...	...	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	...	4
Portugal	9	4	...	...	1	...	...	..	1	..	4	..	..	..	..	..	..	..	..	..	..	..	..	...	19
Azores	7	2	...	...	...	...	...	..	..	1	60	..	..	..	..	..	..	..	..	..	..	..	..	...	70
Russia	...	...	...	...	...	3	...	..	..	..	..	10	..	1	..	..	..	..	..	..	..	..	..	...	14
Austria	...	1	1	1	...	1	...	..	..	..	..	1	5	..	..	..	..	..	..	..	..	..	..	...	10
Sweden	7	9	1	6	4	...	1	..	..	..	..	..	..	66	..	..	..	..	..	..	..	..	..	...	94

TABLE I. BIRTHS IN 1876.—PARENTAGE. (*Continued.*)

Birthplaces of Fathers.	Birthplaces of Mothers.																								Totals.
	United States.	Ireland.	England.	Scotland.	B. A. Provinces.	Germany.	Italy.	France.	Spain.	Portugal.	Western Islands.	Russia.	Austria.	Sweden.	Norway.	Poland.	Denmark.	Turkey.	Switzerland.	Belgium.	Holland.	China.	Other foreign places.	Unknown.	
Norway	4	7	...	...	1	...	...	..	..	..	..	..	..	3	5	..	..	..	..	..	..	..	..	...	20
Poland	3	...	...	...	...	10	...	..	..	..	..	1	..	..	..	25	..	..	..	..	1	..	..	...	40
Holland	5	1	2	...	1	1	...	..	..	..	..	..	..	..	..	..	..	..	..	1	10	..	..	...	21
Denmark	2	4	1	...	1	...	...	1	..	..	..	..	..	2	1	..	7	..	..	..	..	..	..	...	19
Turkey	1	...	...	...	...	...	...	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	...	1
Switzerland	2	...	2	...	...	4	...	..	..	..	..	..	..	..	..	..	..	..	4	..	..	..	..	...	12
Other foreign places	13	5	...	...	...	...	...	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	3	...	24
Unknown	191	130	13	5	40	9	...	..	..	..	..	..	..	9	..	..	1	..	1	..	..	..	..	154	553
	4,166	4,044	393	127	1,008	470	105	30	3	3	66	13	6	93	7	25	9	1	11	2	17	2	9	163	10,773

A glance at the above table will impart a very accurate knowledge of the mongrel character of the population of Boston. Of all the fathers, only 3,695 (34.30 per cent. of the entire number) were native-born. If half of those whose birthplaces are registered as "unknown" are added to the above enumeration, the amount will be increased to 36.87 per cent. It will thus be seen that 63.13 per cent. of all the fathers were foreign-born. As usual, the fathers that were born in Ireland largely outnumber those of any other nativity, making 36.66 per cent. of the entire number, or 58 per cent. of all who were foreign-born. Adding the proportionate share of the "unknown" to those of Irish birth, the percentage will be increased to 38.54.

The contribution made to the population by natives of the British American Provinces is indicated by 830 fathers, making 7.70 per cent. of the entire number. If to this number are added those born in Ireland (3,949), England (423), and Scotland (166), it will be seen that nearly half of the children born (49.83 per cent.) had fathers who were born subjects of Great Britain. The "unknown" fathers are not taken into the account in the above enumeration.

The German element is represented by 644 fathers, making 5.98 per cent. of all the fathers. United with those born in Sweden and Norway (114), and Denmark (19), the fathers of German and Scandinavian origin make 7.21 per cent. of the whole number.

The Italian fathers number 116, and the Portuguese (chiefly natives of the Azores) 90. There were also 40 Polish fathers, 14 Russian, and one was a native of Finland. The children of French fathers number 59; of Spanish, 4. The father of one child was born in Greece, its mother in Ireland; and the father of another was born in Turkey.

The number of children born whose parents were both born in the United States was 2,961 (making 27.49 per cent. of the whole number), while those whose parents were born in Ireland alone number 3,229, making 29.96 per cent., exceeding those of native origin by more than two per cent. No less than 4,044 of the children had Irish mothers, making 37.54 per cent. of all the mothers.

TABLE II. COLORED BIRTHS.

BIRTHPLACES.	Males.	Females.	Totals.
Both parents born in the United States	52	57	109
" " British America	4	2	6
Father native, mother Irish	.....	4	4
" " " British American	9	8	17
" " " English	2	.....	2
" " " Swedish	.....	1	1
" " " other foreign	.....	1	1
" English " native	1	.....	1
" Portuguese " "	1	.....	1
" German " other foreign	1	.....	1
" Other foreign " native	.....	3	3
" Unknown " West Indies	.....	1	4
" " " British American	2	1	3
" " " English	1	.....	1
Both parents unknown	3	.....	3
Totals	79	78	157

The composite character of the parentage in the above table is a singular one, exhibiting almost as great a variety of race as that presented by the whites. The number of children born (including black and mulatto) was 157, — 79 males and 78 females; an increase of 12 over the number recorded in the preceding year. It is also worthy of notice that there should be an increase of colored births, while there is seen to be so large a falling off of white births. The colored population in 1875 was 4,967; it does not probably exceed 5,000 at the present time. According to this estimate the colored births were in the ratio of one birth in 31.84 of the colored population. In the preceding year the ratio was 1 in 34.25. It will be noticed that one father is said to have been born in England, and another in Germany.

TABLE III. TWIN BIRTHS.

Birthplaces of Parents.	Both Males.	Both Females.	Male and Female.	Totals.
Both parents born in the United States	7	9	13	29
" " Ireland	5	8	13	26
" " England	1	. . . . .	. . . . .	1
" " British America . . .	1	. . . . .	. . . . .	1
" " Germany & N. Europe	1	1	3	5
" " Italy	. . . . .	. . . . .	1	1
" " Azores	1	. . . . .	. . . . .	1
Father United States, mother Ireland	4	. . . . .	. . . . .	4
" " " England	. . . . .	1	. . . . .	1
" " " British America .	1	. . . . .	. . . . .	1
" Ireland " United States . .	. . . . .	. . . . .	1	1
" " " British America .	1	1	2	4
" " " Scotland	. . . . .	. . . . .	1	1
" Scotland " United States . .	. . . . .	1	. . . . .	1
" British America " " . .	. . . . .	2	. . . . .	2
" " " Ireland	. . . . .	1	. . . . .	1
" Germany " France	. . . . .	1	. . . . .	1
" France " United States . .	. . . . .	. . . . .	1	1
" England " Ireland	1	. . . . .	1	2
" Unknown " "	1	. . . . .	1	2
Both parents unknown	1	. . . . .	1	2
Totals	25	25	38	88

There were 89 instances of plural births, including one case of triplets, — all females; an increase of 4 over the number recorded in the preceding year. The births were equally divided between the sexes. The ratio of these to single births was 1 in 121. In the case of the triplets the father was native born, and the mother came from the British Provinces. In 58 instances one or both of the parents were foreign-born, making 65.91 per cent. of the whole number.

TABLE IV. STILL-BIRTHS.

	Males.	Females.		Males.	Females.	Unknown.
January	30	25	July	26	16	. . . . .
February	26	16	August	29	18	1
March	26	15	September	19	18	. . . . .
April	22	15	October	27	12	. . . . .
May	25	18	November	18	12	. . . . .
June	24	13	December	19	20	1
			Total	291	198	2

According to the foregoing table there were but 491 still-births in the city of Boston during the past year; a decrease of 50 compared with the preceding year. There can be little doubt that the number reported is far less than the actual number. The ratio of still-births to living births was 1 in 21.94. In 1875 the ratio was 1 in 20.37. The parentage of the children was: Native, 163; Irish, 175; German, 31; British American, 30; English, 17; Scotch, 8; Italian, 3; other foreign, 8; and unknown, 57. The males exceed the females by 92.

There were 20 colored still-births, showing a ratio of 1 in 7.85 of the colored children born alive, presenting a marked contrast to the white births.

MARRIAGES IN 1876.

The number of marriages registered during the year was 2,981, — a decrease of 435 compared with the preceding year, and 1,068 less than were registered in 1874. The record shows that there was one marriage in 58.91 of the entire population of the city. The following table, showing the ratio of marriages to the population in each of the last ten years, exhibits the great change that has taken place during the last three years: —

YEARS.	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876
Ratios	1 in 34.19	32.03	30.18	35.87	34.30	34.56	35.61	40.89	50.05	58.91

The marriages in the several quarters are seen in the following: —

1st Quarter.	2d Quarter.	3d Quarter.	4th Quarter.
January 268	April 210	July 228	October 317
February 300	May 238	August 210	November . . . 330
March 124	June 303	September . . . 258	December 195
Total 692	Total 751	Total 696	Total 842

In the preceding year there were 992 marriages in the second quarter, 27 more than occurred during the fourth quarter, the season in which a larger number of marriages usually occur than during any other quarter.

The daily average of marriages was 8.17. In 1875 it was 9.36; and in the preceding year 11.10.

TABLE V. BIRTHPLACES OF THE PARTIES.

Birthplaces of Grooms.	Birthplaces of Brides.											
	Boston.	Mass.	Other States.	England and Wales.	Ireland.	Scotland.	British Am. Provinces.	Germany.	Other foreign places.	Unknown.	Totals.	Per cent.
Boston	191	73	73	9	38	4	37	5	2	.	432	14.49
Other places in State .	107	181	114	12	23	1	49	5	7	.	499	16.74
Other States	133	114	292	11	27	2	82	2	5	.	668	22.41
England and Wales . .	21	11	12	20	28	. .	24	. .	. .	1	117	3.92
Ireland	64	26	10	13	584	. .	30	2	. .	.	729	24.45
Scotland	2	5	4	6	10	4	4	. .	. .	.	35	1.17
British Am. Provinces	30	24	32	6	34	2	110	1	. .	1	240	8.05
Germany	18	10	10	4	16	. .	6	87	4	.	155	5.20
Other foreign places .	9	7	15	7	10	. .	1	4	51	.	104	3.49
At sea	1	. . .	1	. .	. . .	. .	. . .	. .	. .	.	2	.07
Totals	576	451	563	88	770	13	343	106	69	2	981	. .
Per cent.	19.32	15.13	18.89	2.95	25.83	.44	11.51	3.55	2.31	.07	. .	. .

The facts exhibited in the above table are so uniform year after year as to suggest but little that has not before been

noticed. Compared with the preceding year the native-born grooms have diminished, relatively, 1.17 per cent., and the native-born brides 1.96 per cent. At the same time the Irish-born grooms have increased 1.79, and the Irish brides 2.03 per cent. There was also a slight increase of grooms of German birth (nearly one per cent.), and of those born in British America, .47 of one per cent.

Of the native-born grooms, 321 (20 per cent. of the whole number) married foreign-born brides. On the other hand, 312 foreign-born grooms (22.57 per cent. of this class) married native-born brides. The native grooms exceeded those of foreign birth by 217. In the preceding year the excess was 326. Only 191 of the grooms born in Boston married brides who were born here.

TABLE VI. AGES OF THE PARTIES.

Ages of Grooms.	Ages of Brides.								
	Under 18.	18 to 25.	25 to 30.	30 to 40.	40 to 50.	50 to 60.	60 to 70.	Totals.	Per cent.
Under 21	3	41	2	2	...	...	...	48	1.61
21 to 25	28	754	80	14	1	...	...	877	29.42
25 to 30	12	596	330	77	2	...	...	1,017	34.12
30 to 40	3	216	289	195	11	...	...	714	23.95
40 to 50	...	20	51	115	43	2	...	231	7.75
50 to 60	...	3	4	26	20	9	...	62	2.08
60 to 70	...	3	4	5	6	9	2	29	.97
70 to 80	...	...	...	1	1	1	...	3	.10
Totals	46	1,633	760	435	84	21	2	2,981	...
Per cent.	1.54	54.78	25.49	14.59	2.82	.70	...	...	100.00

The facts exhibited in the foregoing table are, as is usually the case, of a most interesting character. Compared with the preceding year there was a large decrease of the marriages of minors, of both sexes, the number of grooms being 48 (a decrease of 44), and that of the brides 46, a decrease of 24. There were but three instances in which both the grooms and the brides were under age. Two of these grooms (19 years of age) married brides aged 16 and 17 years respectively, and the other (20 years) married a bride of 16. In 1875 the number of such marriages was 12. Two

minor grooms married brides who were between 30 and 40. Four grooms of 18 married brides of the same age, and one other a bride one year older. There were 7 grooms 19 years of age (one of whom married a bride of 20), and the remainder were 20 years of age. There were 3 grooms 21 years of age, and another 23 years, who married brides only 15 years of age.

Of the 62 grooms between 50 and 60 years of age, 3 married brides who had not reached their 25th year; 4 married those who were under 30; 26 those who were below 40; 20 chose as their companions those who were under 50; while 9 united themselves to brides whose ages were near their own. Of the 29 who had passed their threescore years, 3 became husbands to brides under 25 years of age; 4 others married those who had not reached their 30th year; the brides of 5 others were on the sunny side of 40; 6 others had companions under 50 years; 9, those who were between 50 and 60; leaving 2 solitary grooms matched with brides who were, with themselves, on the road to the scriptural limit of human life. Of the 3 grooms who were rapidly becoming octogenarians, 1 was united to a bride of 40, 1 to a bride just below 50, while the other had as his companion one of the mature age of 60.

The grooms in 14 marriages were of the average age of 61.07 years, while their brides were of the average age of 30.79 years. On the other hand, in 18 instances the grooms were of the average age of 26.61 years, while their brides were of the average age of 36.67 years.

In 260 instances the brides were older than the grooms. In the preceding year the number of such cases was 217.

The number of marriages in which one or both parties were colored was 101, — a decrease of 25 compared with the preceding year. In 72 instances both parties were black; in 17 the grooms were black and the brides white; in 5 the grooms were mulattoes and the brides white; in 3 the grooms and the brides were mulattoes; and 1 in which the groom was black and the bride a mulatto.

The colored marriages were in the ratio of 1 in 24.75 of the colored population. In 1875 the ratio was 1 in 20. The ratio of white marriages to the white population was 1 in 60.11.

Of the occupations of the grooms there is little variation from year to year. 16 per cent. of the grooms were laborers; 10.19 per cent. were clerks; 5.27 per cent. were merchants and traders; 4.26 per cent. were mariners; and 3.49 per cent. were teamsters. The professions were represented by 22 lawyers, 15 physicians, and 11 clergymen.

TABLE VII. NUMBER OF TIMES MARRIED.

Grooms.	Brides.			
	First.	Second.	Third.	Totals.
First marriage	2,263	199	3	2,465
Second "	320	151	8	479
Third "	29	5	3	37
Totals	2,612	355	14	2,981

Of the 479 grooms who had been once widowed, 320 married spinsters, 151 married widows, and 5 married brides who had been twice widowed. Of those grooms who had been twice widowed (37) 29 married spinsters, 5 married widows, and 3 married those who had a similar numerical experience. Of the bachelor grooms, 199 married widows, and 3 married brides who had been twice widowed.

Of the grooms, 2,525 were residents of Boston, 283 resided in other towns in the State, and 173 belonged in other States. Of the brides, 2,702 resided in Boston, 176 in other towns in the State, and 103 came from other States.

The number of certificates of intentions of marriage issued during the year was 3,391, — a decrease of 597 from the number issued in the preceding year, and 1,300 less than were take out in 1874.

DEATHS IN 1876.

The whole number of deaths registered during the past year was 8,203, — 4,110 males and 4,093 females; a decrease, compared with the preceding year, of 755 deaths. The death-rate, therefore, is seen to be 23.35 deaths in a thousand of the population, or 1 in 42.82 of all living. This is a considerable improvement on the record of the preceding year, when the rate was 26.20 in a thousand, or 1 death in each 38.17 of the whole population. The male decedents were in the ratio of 1 in 38.14 of the male population, while the female decedents were in the ratio of 1 in 47.57 of the female population. The daily average of deaths was 22.47.

The number and percentage of deaths in each quarter are seen in the following table: —

	1st Quarter.	2d Quarter.	3d Quarter.	4th Quarter.
No. of deaths	2,237	1,789	2,357	1,820
Percentage	27.27	21.81	28.73	22.19

In the preceding year the deaths in the first quarter made 24 45 per cent. of the whole mortality; those in the second, 21.31 per cent.; those in the third, 29.92 per cent.; and those in the fourth, 24.32 per cent.

TABLE VIII. DECEDENTS UNDER TWENTY YEARS OF AGE.

Nativity of Fathers.	Ages.								Per cent.
	1 day.	1 d. to 6 m.	6 to 12 m.	1 to 5 yrs.	5 to 10 yrs.	10 to 15 yrs.	15 to 20 yrs.	Totals.	
Native	60	364	184	440	171	47	61	1,327	30.58
Ireland	77	396	277	674	175	51	114	1,764	40.64
England	3	52	29	57	19	6	9	175	4.03
Scotland	1	16	13	26	13	4	2	75	1.73
British America . . .	8	79	52	122	30	11	16	318	7.33
Germany, N. Europe	9	71	51	112	27	13	7	290	6.68
Italy	2	12	8	14	3	. . .	1	40	.92
Portugal	3	13	8	10	3	1	1	39	.90
France	2	7	5	8	3	1	. . .	26	.60
Other foreign places .	1	9	9	13	3	2	4	41	.94
Unknown	15	185	15	19	6	3	2	245	5.65
Total	181	1,204	651	1,495	453	139.	217	4,340	. . .
Per cent.	2.21	14.68	7.94	18.22	5.52	1.69	2.65	. . .	100.00

The above table exhibits the number of the decedents under 20 years of age, arranged according to the nativity of their fathers. The whole number of those who died under 20 years was 4,340, making 52.91 per cent. of all that died. In the preceding year 54.56 per cent. of all the decedents were under 20 years. According to sex, the males number 2,260, and the females 2,080, the former exceeding the latter by 180. The number of children who died under 1 year was 2,036, making 24.82 per cent. of all the decedents. All who died under 5 years made 43.04 per cent. The

decedents between 5 and 10 made 5.52 per cent. of the whole number; those between 10 and 15 only 1.69 per cent.; and those between 15 and 20, 2.65 per cent. Of all who died, 181 (2.21 per cent.) died on the day of their birth; 1,385 (16.88 per cent.) died before they were six months old; while 1,495 (18.22 per cent.) were between 1 and 5 years.

It will be observed that 30.58 per cent. of the decedents under 20 years were of native parentage; 40.64 per cent. of Irish origin; 6.68 per cent. of German and Scandinavian parentage; 7.33 per cent. of British American; and the remainder of various foreign origin, making 3.36 per cent. of those embraced in the table. The decedents of unknown parentage (mostly illegitimate) make 5.64 per cent. of all contained in the table.

TABLE IX. DECEDENTS OVER TWENTY YEARS OF AGE.

BIRTHPLACES.	20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		Over 90.		Totals.	Per cent.
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
United States	212	223	122	145	124	96	103	88	111	116	89	133	33	92	10	18	1,715	44.40
Ireland	86	120	148	157	149	130	111	134	128	115	78	84	22	52	8	19	1,541	39.89
England	10	11	13	11	14	25	17	5	11	10	2	4	1	4	...	...	138	3.57
Scotland	5	5	6	2	6	6	3	1	2	1	3	1	...	1	...	...	42	1.09
British America	20	46	16	23	17	13	5	12	2	16	6	10	1	2	...	...	189	4.90
Germany	14	9	14	13	23	5	14	8	7	9	7	9	3	1	...	1	137	3.55
Portugal	1	...	1	...	...	1	...	...	1	2	...	...	...	...	...	...	6	.15
Italy	1	2	2	1	1	2	1	...	...	...	...	...	...	...	...	...	10	.26
France	1	1	2	1	2	1	2	...	1	...	...	...	...	...	...	...	11	.28
Other foreign places	6	3	7	3	6	1	4	...	2	1	3	...	...	1	1	...	38	.98
Unknown	5	5	12	1	8	1	1	...	2	...	1	...	...	...	...	...	36	.93
Totals	786		700		631		509		537		430		213		57		3,863	
Per cent.	20.35		18.12		16.33		13.18		13.90		11.13		5.51		1.48		....	100.00

The number of those who died above 20 years of age was 3,863, — 1,850 males, and 2,013 females; making 47.09 per cent. of all the decedents. The female exceeded the male decedents by 163. Of those who were under 20 years, the males exceeded the females by 180. The native-born decedents make 44.40 per cent. of the whole number, and the Irish-born 39.89 per cent., the two classes making 84 29 per cent. of the total number. In the first divisional period, between 20 and 30, the female decedents exceed the males by 64, and in the second by 14. In the third period the males exceed the females by 69, and in the fourth by 13. In the remaining periods the female decedents exceed the males by 3 in the first, 52 in the second, 93 in the third, and 10 in the last.

It will be further observed, that of those who died between 20 and 30 the decedents of native birth exceeded those born in Ireland by 229. In the next four periods those of Irish birth exceed the native-born by 38, 59, 54, and 16 in each period respectively. In the last three periods the decedents of Irish birth exceed those that were native-born by 60 in the first, 51 in the second, and 1 in the third.

TABLE X. DEATHS IN EACH MONTH.—SEX AND AGE.

Months.	Under 1.		1 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		60 to 70.		70 to 80.		80 to 90.		Over 90.		Totals.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	56	67	102	99	37	29	8	8	8	16	29	45	38	38	30	24	24	15	27	27	22	22	6	17	5	5	392	512
February	75	64	81	69	27	18	5	9	9	7	33	32	37	33	31	26	26	24	22	21	19	18	7	10	1	3	373	334
March	96	64	75	56	26	19	7	7	8	5	37	41	23	28	38	26	22	25	26	23	21	31	3	13	1	5	383	343
April	82	58	74	49	15	14	6	3	9	11	30	27	35	25	35	21	24	31	28	24	18	28	3	22	2	2	361	315
May	56	44	50	41	15	16	7	8	9	7	34	30	25	29	36	15	23	15	28	31	12	19	9	13	2	1	306	269
June	65	61	49	41	16	19	6	5	7	10	26	36	17	33	16	17	20	21	13	14	11	18	4	8	1	4	251	287
July	188	169	65	67	15	19	4	7	12	9	28	30	32	24	27	38	28	9	19	24	14	22	3	6	2	2	437	426
August	183	158	68	89	8	20	4	4	11	13	36	37	26	26	24	27	17	21	19	21	14	16	1	11	2	5	413	338
September	111	94	50	71	16	8	6	5	8	8	20	31	24	22	26	27	15	18	23	19	13	11	8	8	. .	1	320	323
October	60	54	51	60	17	22	6	5	11	10	27	46	29	37	26	27	15	18	20	20	14	14	4	11	1	5	281	329
November	58	46	45	37	12	22	5	5	7	4	26	40	21	28	24	19	16	22	16	24	13	22	6	16	1	2	250	287
December	63	64	60	56	20	23	6	3	4	14	35	30	36	34	37	14	31	29	26	22	18	20	6	18	1	3	343	330
Totals	1093	943	770	725	224	229	70	69	103	114	361	425	343	357	350	281	261	248	267	270	189	241	60	153	19	38	4110	4093

The above table shows the number of deaths in each month, together with the ages of the decedents. There were three centenarians who died during the year, — all females, — one in August, one in October, and the other in September. Two were born in Ireland, and one in Salem, Mass.

TABLE XI. DEATHS IN WARDS AND PUBLIC INSTITUTIONS.

Wards.	Deaths.	Per cent. of Deaths.	Per cent. of Population.	Wards.	Deaths.	Per cent. of Deaths.	Per cent. of Population.	Public Institutions.	Deaths.	Per cent.
1	247	3.01	4.07	14	383	4.67	5.47	City Hospital	270	
2	304	3.71	4.51	15	324	3.95	4.03	Mass. Hospital . . .	147	
3	240	2.93	3.27	16	303	3.69	4.29	St. Mary's Inf. Asy.	207	
4	222	2.71	3.26	17	216	2.60	4.02	Deer Island	73	
5	220	2.68	3.29	18	191	2.33	3.82	Consumptive Home	69	
6	498	6.07	5.16	19	405	4.94	5.47	Carney Hospital . .	34	11.75
7	315	3.84	3.64	20	338	4.12	4.49	Rainsford Island . .	29	
8	292	3.56	3.54	21	222	2.71	3.38	Lunatic Hospital . .	26	
9	236	2.88	3.68	22	300	3.66	3.49	N. E. Hospital . . .	15	
10	193	2.35	3.05	23	196	2.39	3.60	Homœopathic Hosp.	7	
11	218	2.66	4.05	24	271	3.31	3.93	Other institutions .	87	
12	384	4.68	4.34	25	107	1.31	1.81			
13	614	7.49	6.34							
					7,239	88.25	100.00			

The above table exhibits the number of deaths in each ward, with the percentages of the deaths and of the population in the same localities. The deaths in the various hospitals and other public institutions are used separately. It will be seen that in only seven wards (6, 7, 8, 12, 13, 15, and 22) the percentage of deaths was in excess of the percentage of the population in the same wards. With the exception of Wards 6 and 13 (the first the North End Ward, and the other comprising the extreme westerly part of South Boston), the difference in the percentages is inconsiderable.

An examination of the following table will be likely to correct some erroneous notions concerning the sanitary condition of the city. It gives a careful estimate of the population in each ward, together with the area in acres of each,

with the number of inhabitants to each acre, and the death-rate in the several wards. The reader is thus apprised of the most populous parts of the city, and he can thereby form some opinion as to what extent the death-rate is affected by the density of population. It will be observed that the total area of the city is stated to be 20,581.12 acres. This amount, however, includes only the occupied portions of the city, and not those parts used as parks, commons, squares, public buildings, etc.

Wards.	Population.	Area in acres.	Population to acre.	Deaths in each 1,000 of population.	Wards.	Population.	Area in acres.	Population to acre.	Deaths in each 1,000 of population.
1 . . .	14,305	1,099.75	13.25	17.27	15 . . .	14,142	429.00	32.96	22.91
2 . . .	15,843	449.87	35.21	19.18	16 . . .	15,056	64.25	234.18	21.51
3 . . .	11,470	170.00	67 47	20.92	17 . . .	14,112	102.60	137.54	15.31
4 . . .	11,457	242.00	47.34	19.37	18 . . .	13,411	100.70	133.17	14.91
5 . . .	11,545	130.75	88.21	19.05	19 . . .	19,213	148.60	129.29	21.08
6 . . .	18,141	139.00	130.51	27.45	20 . . .	15,768	666.00	23.67	21.43
7 . . .	12,778	65.67	194.61	24.65	21 . . .	11,860	636.60	18.63	18.72
8 . . .	12,427	48.00	258.89	23.49	22 . . .	12,281	1,080.00	11.46	24.43
9 . . .	12,921	81.00	159.52	18.26	23 . . .	12,651	6,386.00	.98	15.49
10 . . .	10,715	94.00	113.99	18.01	24 . . .	13,829	4,762.00	2.90	19.60
11 . . .	14,235	470.33	30.26	15.33	25 . . .	6,369	2,343.00	2.72	16.80
12 . . .	15,247	146.00	104.43	25.19					
13 . . .	22,273	228.00	97.69	27.56		351,247	20,581.12		
14 . . .	19,208	518.00	37.08	19.94					

Although Ward 8 is the most populous one relatively, it does not exhibit the highest death-rate. Wards 13 and 6, with a far less population to the acre, present the highest death-rate, being 27.56 and 27.45 respectively, in a thousand. Ward 23 (West Roxbury) has by far the largest area, and the smallest number of inhabitants to the acre, being .98 of one per cent. to the acre. Ward 8 shows a death-rate of 23.49 in a thousand, which is considerably less than those of Wards 6, 7, 12, 13, and 22, which have a less number of inhabitants to the acre, although the aggregate population of each (with the exception of Ward 22) is larger than that of Ward 8. Wards 1 and 2 (East Boston) have 13.25 and 35.21 inhabitants to an acre in each respectively, and show a death-rate of 17.27 in the first, and 19.18 in the second,

far below the average rate of the whole city. Wards 3, 4, and 5 (Charlestown), have an aggregate area of 542.75 acres, with a population in the first-named ward of 67.47 to the acre; in the second, 47.34; and in the third, 88 21; with a death-rate of 20 92, 19.37, and 19.05 in each respectively, which are below the average of the whole city.

It will be perceived that the lowest death-rate is in Ward 18, — it being only 14.91 deaths in a thousand. The area of this ward is 100.70 acres, with a population to each acre of 133.17. This ward is bounded by Brookline and Lenox and Camden streets, and extends from Albany street westerly to the Boston and Providence Railroad. This district embraces a large portion of made land, and is supposed to be peculiarly afflicted by bad drainage and disagreeable odors, which not only destroy all comfort, but threaten to undermine the health of the residents of the ward, if not to produce a pestilence. Notwithstanding this unfortunate condition, and the dire calamities that are said to be impending, this ward presents the lowest death-rate of any of the twenty-five. It will be a satisfaction to the residents of this ward to know, that, notwithstanding the discomforts that surround them from undesirable odors, they are located in one of the healthiest districts of the city, and that the present low death-rate differs very little from that which has existed there for many years past.

The same remarks are applicable to Ward 17, which adjoins Ward 18, with nearly the same eastern and western boundaries. This ward ranks as the fifth in the number of the inhabitants to the acre, and yet the death-rate there is only 15.31 in a thousand.

What has been said concerning Wards 17 and 18 may be greatly emphasized in regard to Ward 11. This ward consists of 470.33 acres, and adjoins Wards 17 and 18 on their western boundaries. It is almost wholly made up of land reclaimed from the Back-Bay basin, where the tide ebbs and flows under almost every residence in the ward. With all these drawbacks the death-rate is only 15.33 in a thousand. Whatever may be the annoyances met with in the district forming these three wards, there is little doubt that much unnecessary alarm has been created. Instead of this district being the seat of all the maladies that afflict humanity, it is really one of the most favorable localities, in a sanitary point of view, of the whole city; and whatever diseases may exist there, it has not been shown that they have been created by defective drainage; nor would it be easy to demonstrate that anything more serious than what has already occurred is likely to transpire in the future.

The number of colored decedents (black and mulatto) was 154, — 76 males and 78 females; a decrease of 5 compared with the preceding year. The death-rate was 30.80 in a thousand, or there was one death in 32.47 of the colored population. In the preceding year the rate was 32 in a thousand, or one death in each 31.24 of the colored population. The unusual occurrence is witnessed in the fact that in 1876 the colored births exceeded the colored deaths, the excess of births over the deaths being three.

The statistics relating to the births, marriages, and deaths among the colored population have been almost uniformly of a very singular character. Year after year the deaths have exceeded the births in number, and in some years the marriages have exhibited a like preponderance over the births. The past year, however, shows a slight change in these particulars, there being an excess of colored births (three) over the colored deaths. The difference between the two races is seen in the following comparative statement: —

	1876			1875		
	Births.	Marriages.	Deaths.	Births.	Marriages.	Deaths.
	No. living to one birth.	No. living to one marriage.	No. living to one death.	No. living to one birth.	No. living to one marriage.	No. living to one death.
White	32.62	60.11	43.02	30.98	51.18	38.29
Colored . . .	31.85	24.75	32.47	34.25	20.03	31.24

Of all the decedents 35.32 per cent. were or had been married at the time of their deaths. Or, of those who had reached a marriageable age (say 20 years), 74.91 per cent. were or had been married. Of the males who were above 20 years of age (1,850) 70.27 per cent. were or had been married. The number of female decedents above 20 years of age was 2,013, of which 79.33 per cent. had been married. Of the married males, 432 were native and 636 were foreign born. There were 98 native-born widowers, and 134 that were foreign-born. The number of married females was 930, of whom 417 were native and 513 foreign born. The total number of widows was 667, of whom 381 were foreign-born.

The daily average of deaths was 22.47. In the preceding year the average was 24.54.

TABLE XII. CAUSES OF DEATH.

Males.													Causes of Death.	Females.												
Totals.	Dec.	Nov.	Oct.	Sept.	Aug.	July.	June.	May.	April.	March.	Feb.	Jan.		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
142	21	11	11	11	12	13	6	15	13	11	9	9	Accidents (various)	1	4	3	6	6	2	5	5	4	8	3	2	49
8	. .	1	. .	. .	. .	1	1	. .	1	2	2	. .	" Burns and Scalds	3	2	1	1	1	. .	. .	1	1	1	3	2	16
59	4	5	1	8	7	9	7	6	3	2	3	4	" Drowned	. .	. .	. .	1	1	1	1	1	1	. .	. .	. .	6
1	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	" Surgical operation	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	1
15	1	. .	1	1	1	1	1	3	1	2	2	1	Abscess	. .	. .	1	3	. .	. .	1	1	. .	. .	2	. .	8
4	1	. .	. .	. .	. .	. .	2	1	. .	. .	. .	. .	Anæmia	. .	2	2	. .	1	3	. .	1	. .	1	1	. .	11
7	. .	. .	1	1	2	2	. .	. .	. .	. .	1	. .	Aneurism	. .	. .	. .	1	. .	. .	. .	1	. .	. .	. .	. .	2
83	14	4	7	8	2	6	8	6	5	4	9	10	Apoplexy	2	3	3	10	9	8	6	9	6	4	8	9	77
1	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	Arteritis	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
3	. .	. .	. .	2	. .	. .	. .	. .	. .	. .	1	. .	Ascites	1	1	1	1	. .	1	. .	1	. .	. .	. .	1	7
4	.	. .	1	. .	. .	. .	. .	. .	. .	1	1	1	Asthma	1	1	2	1	1	. .	. .	. .	. .	1	. .	1	8
5	. .	. .	. .	. .	. .	1	1	. .	. .	1	. .	2	Bladder, disease of	. .	. .	. .	. .	1	. .	. .	. .	1	. .	. .	. .	2
5	. .	1	. .	. .	1	. .	. .	1	. .	1	. .	1	Bowels, disease of	1	. .	1	. .	. .	1	1	1	. .	. .	3	. .	8
18	1	. .	1	3	3	1	. .	1	2	1	2	3	Brain, congestion of	3	2	3	1	2	. .	2	. .	4	3	2	1	23
125	13	8	10	11	7	9	7	6	13	21	11	9	" disease of	9	12	9	7	6	5	12	12	2	7	8	7	96
12	. .	. .	2	1	1	2	1	. .	2	3	. .	. .	" inflammation of	1	3	1	1	1	. .	1	1	. .	2	. .	1	12
103	6	7	6	5	5	7	9	6	11	15	8	18	Bronchitis	9	17	13	13	4	11	7	8	8	13	13	12	128

2	..	..	..	..	1	..	..	..	..	1	..	..	Calculus	..	..	..	..	..	..	..	..	..	..	..	..	..
47	1	6	2	4	4	6	1	8	3	6	4	2	Cancer	6	8	8	13	11	8	12	13	11	6	11	10	117
2	..	..	..	1	..	..	..	..	..	..	..	1	Carbuncle	..	..	..	..	..	..	..	..	..	..	1	..	1
2	..	..	1	1	..	..	..	..	..	..	..	..	Caries	..	1	..	..	..	..	..	..	1	..	..	..	2
1	..	..	..	..	..	..	1	..	..	..	..	..	Cellulitis	..	..	..	..	..	..	1	..	..	..	..	..	1
..	..	..	..	..	..	..	..	..	..	..	..	..	Childbirth	12	6	6	9	7	12	3	4	3	3	8	4	77
282	2	..	9	49	103	113	3	..	1	1	1	..	Cholera Infantum	..	..	..	..	2	5	107	95	43	6	1	1	260
10	..	..	..	..	6	2	1	..	1	..	..	..	" Morbus	..	..	..	..	1	..	1	6	1	1	..	1	11
..	..	..	..	..	..	..	..	..	..	..	..	..	Chorea	..	1	..	..	..	..	..	..	..	..	..	..	1
606	58	34	53	33	52	45	40	56	70	56	59	50	Consumption	69	51	43	52	43	54	59	56	50	68	57	60	662
69	5	7	6	6	1	11	1	5	8	6	8	5	Convulsions	9	5	7	5	7	8	7	8	8	..	6	5	75
64	3	3	10	2	..	1	5	7	8	7	5	13	Croup	12	6	7	5	7	1	3	4	1	1	3	9	59
21	..	2	2	1	3	..	2	2	2	4	1	2	Cyanosis	2	..	..	1	3	..	1	3	1	1	1	1	14
17	1	2	..	2	1	1	1	1	4	..	2	2	Cystitis	..	..	..	..	..	..	..	1	..	..	..	..	1
16	3	..	..	2	..	1	..	..	1	8	..	1	Debility	..	1	2	5	..	..	1	1	..	..	1	2	13
66	8	3	7	4	8	8	7	4	8	..	5	4	Diseases, Infantile	6	6	10	..	2	8	6	3	7	1	3	9	61
3	..	1	..	..	..	..	1	..	..	1	..	..	Diabetes	..	..	..	..	..	..	..	..	..	..	..	..	..
96	2	1	8	22	25	20	3	2	2	2	2	7	Diarrhœa	3	2	1	4	2	..	15	28	17	8	1	1	82
312	32	23	16	10	17	11	20	26	26	31	45	55	Diphtheria	53	34	26	22	20	22	24	17	15	30	20	29	312
9	3	1	1	..	1	..	..	1	..	1	1	..	Dropsy	..	3	1	2	..	3	4	3	..	..	1	2	19
43	1	2	7	12	11	4	..	1	3	1	..	1	Dysentery	..	1	3	1	2	3	7	20	8	6	1	1	53
6	..	2	..	1	..	1	2	..	..	..	..	..	Dyspepsia	..	..	..	1	1	..	2	..	..	..	..	..	4
2	1	..	..	..	..	..	..	..	1	..	..	..	Embolism	3	..	..	..	..	1	..	..	..	..	..	..	4

CAUSES OF DEATH.—*Continued.*

Males.													Causes of Death.	Females.												
Totals.	Dec.	Nov.	Oct.	Sept.	Aug.	July.	June.	May.	April.	March.	Feb.	Jan.		Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Totals.
34	2	1	3	7	5	6	1	2	2	2	2	1	Enteritis	2	2	1	4	3	2	5	10	8	1	2	4	44
13	2	. .	. .	2	. .	1	1	1	1	3	1	1	Epilepsy	. .	1	1	1	1	1	1	. .	1	. .	1	1	9
2	. .	. .	1	. .	. .	. .	. .	. .	. .	1	. .	. .	Epistaxis	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
20	1	. .	3	. .	1	. .	3	1	3	4	. .	4	Erysipelas	2	3	5	1	2	1	1	2	1	2	2	3	25
1	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	Execution	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
3	. .	. .	. .	1	. .	. .	. .	. .	. .	1	1	. .	Exposure	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	Fever, ephemeral	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	1
2	. .	. .	. .	2	. .	. .	. .	. .	. .	. .	. .	. .	" bilious	. .	. .	. .	. .	. .	. .	. .	1	. .	1	. .	. .	2
77	5	6	7	7	8	5	10	5	4	3	4	13	" typhoid	3	5	3	1	2	3	4	9	13	17	8	3	71
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	Fistula	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	Frozen	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	1
19	2	1	1	1	2	2	1	3	3	2	1	. .	Gastritis	4	2	1	1	3	2	3	1	2	1	. .	. .	20
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	Glossitis	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1
. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	Hæmorrhoids	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	1
9	. .	1	. .	. .	1	. .	. .	. .	2	3	1	1	Hæmorrhage	. .	1	. .	. .	. .	. .	1	1	. .	. .	. .	. .	3
165	17	21	15	12	8	10	5	15	18	18	17	9	Heart, disease of	22	21	19	19	18	15	9	9	16	21	19	16	204
5	. .	. .	. .	. .	. .	1	. .	1	. .	. .	1	2	Hernia	1	1	1	1	. .	. .	3	. .	. .	2	. .	1	10

2	1	..	..	..	..	..	..	1	..	..	..	..	Hip, disease of	..	..	1	..	..	2	..	..	..	..	1	..	4
10	..	1	..	..	1	1	3	..	1	..	2	1	Homicide	..	..	1	..	2	..	1	..	..	..	..	..	4
83	4	5	2	6	6	10	9	6	13	7	9	6	Hydrocephalus	7	6	9	7	5	10	6	6	5	7	5	6	79
1	..	..	..	..	..	..	..	..	..	1	..	..	Inflammation	..	..	..	..	..	..	..	..	..	..	..	..	..
1	1	..	..	..	..	..	..	..	..	..	..	..	Influenza	..	..	2	2	..	..	..	..	..	..	..	..	4
6	1	1	1	..	1	..	..	..	..	1	..	1	Insanity	..	..	2	1	..	..	1	..	..	..	1	..	5
24	2	..	2	5	1	2	2	..	1	2	4	3	Intemperance	..	1	1	2	..	..	1	..	1	2	..	1	9
2	..	..	1	..	..	..	..	..	..	1	..	..	Intussusception	1	..	..	..	1	..	..	..	1	..	..	..	3
9	..	1	..	..	..	3	..	..	2	1	..	2	Jaundice	..	1	..	1	..	..	..	1	1	1	..	1	6
1	..	..	..	..	..	1	..	..	..	..	..	..	Joints, disease of	..	..	..	..	..	..	..	..	..	..	..	1	1
18	1	3	1	..	1	2	2	1	1	2	3	1	Kidneys, disease of	2	..	2	1	2	..	1	..	1	1	..	2	12
5	..	..	..	..	2	..	..	1	..	..	1	1	Laryngitis	4	1	1	1	..	2	..	..	..	..	..	1	10
1	..	..	..	1	..	..	..	..	..	..	..	..	Leucocythemia	..	..	1	..	..	1	..	1	..	..	..	..	3
38	6	1	..	3	2	3	4	3	1	6	5	4	Liver, disease of	..	3	6	1	3	2	2	4	2	2	2	3	30
..	..	..	..	..	..	..	..	..	..	..	..	..	Locomotor Ataxia	..	..	..	..	..	..	..	..	..	..	1	..	1
45	4	4	3	..	..	6	1	3	6	5	10	3	Lungs, congestion of	3	6	2	..	4	1	2	3	1	1	3	4	30
4	..	..	1	1	..	..	2	..	..	..	..	..	Malformation	1	..	..	..	..	2	1	..	..	..	1	..	5
200	19	10	11	15	29	19	19	15	17	18	22	6	Marasmus and Tabes Mesenterica	16	10	16	11	11	11	15	27	15	18	11	6	167
1	..	..	..	..	..	..	..	..	1	..	..	..	Measles	..	..	1	..	..	1	..	..	..	..	..	..	2
3	..	..	..	..	..	1	..	1	..	1	..	..	Meningitis, Cerebro-spinal	1	2	..	..	1	1	2	1	..	1	..	1	10
..	..	..	..	..	..	..	..	..	..	..	..	..	Metria	4	2	2	1	2	4	1	..	..	2	3	2	23
6	..	..	..	..	1	..	..	1	1	..	2	1	Mortification	1	1	1	1	..	..	..	..	1	1	..	..	6
3	..	..	..	..	..	2	..	..	..	1	..	..	Necrosis	..	..	..	..	..	..	..	..	..	1	..	..	1

CAUSES OF DEATH. — *Continued.*

Males.													Causes of Death.	Females.												
Totals.	Dec.	Nov.	Oct.	Sept.	Aug.	July.	June.	May.	April.	March.	Feb.	Jan.		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
49	2	2	8	. .	10	5	4	4	5	5	3	1	Nephria (Bright's disease)	2	4	7	4	3	4	2	1	1	3	4	2	37
2	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	1	Neuralgia	. .	. .	. .	1	. .	2	. .	. .	. .	. .	. .	. .	3
4	1	. .	. .	1	. .	1	1	. .	. .	. .	. .	. .	Noma	. .	. .	. .	2	. .	2	. .	. .	2	. .	. .	1	7
70	6	4	6	4	2	6	3	7	3	6	7	16	Old Age	16	15	18	17	14	11	10	6	7	11	15	16	156
34	2	4	3	6	2	3	2	2	4	1	2	3	Paralysis	7	2	4	2	2	2	6	6	3	. .	5	7	46
1	. .	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	Pemphigus	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1	. .	1
21	2	1	2	1	2	1	. .	. .	. .	6	3	3	Peritonitis	2	1	1	1	1	3	1	. .	3	1	4	1	19
1	. .	. .	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	Pharyngitis	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
3	. .	. .	1	. .	. .	. .	. .	. .	. .	1	. .	1	Phlebitis	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	. .	1
21	2	. .	2	1	. .	2	. .	2	1	5	4	2	Pleurisy	2	1	4	3	3	2	. .	. .	. .	. .	1	3	19
280	30	18	15	13	13	13	12	31	34	37	36	28	Pneumonia	37	24	37	25	21	11	9	7	12	22	13	25	243
76	2	8	3	9	10	11	4	10	1	7	2	9	Premature Birth	4	4	5	4	. .	5	9	8	9	5	4	2	59
5	. .	. .	. .	. .	. .	1	1	. .	1	. .	. .	2	Prostate, dis. of	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
3	. .	1	. .	. .	. .	. .	. .	1	. .	. .	1	. .	Purpura	. .	. .	. .	. .	. .	1	. .	. .	. .	1	. .	1	3
17	. .	2	3	. .	2	1	1	1	2	1	2	2	Pyæmia	2	. .	1	. .	. .	. .	1	1	. .	1	. .	. .	6
8	. .	1	. .	. .	. .	. .	2	. .	2	. .	2	1	Quinsy	. .	. .	1	. .	1	. .	. .	. .	. .	. .	. .	. .	2
26	2	1	2	2	2	3	2	2	3	3	1	3	Rheumatism	3	5	1	3	3	4	2	. .	2	1	1	1	26

228	31	16	10	4	8	9	13	11	20	25	29	52	Scarlatina	40	25	20	18	10	10	14	9	6	15	13	24	204
4	..	..	1	..	..	..	..	2	1	..	..	..	Scrofula	..	1	1	..	1	4	..	..	2	..	..	1	10
6	1	..	..	..	..	..	2	1	1	1	..	..	Septicæmia	1	1	..	..	1	1	..	1	1	..	..	1	7
2	..	..	..	2	..	..	..	..	..	..	..	..	Skin, disease of	..	..	..	..	..	..	1	..	..	..	..	..	1
3	1	1	..	..	..	..	..	..	1	..	..	..	Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..
1	..	..	..	..	..	..	..	..	..	..	1	..	Spanæmia	..	..	..	..	..	..	..	..	..	..	..	..	..
7	..	1	..	..	..	..	1	..	..	2	2	1	Spina Bifida	1	..	..	1	..	..	1	3	..	1	1	..	8
6	1	..	..	2	..	1	..	..	..	1	1	..	Spine, disease of	..	..	1	..	1	1	1	..	..	..	..	1	5
1	..	..	..	..	1	..	..	..	..	..	..	..	Spleen, disease of	..	..	..	..	..	..	..	..	..	..	..	..	..
2	1	..	..	..	..	..	1	..	..	..	..	..	Stomach, disease of	..	1	..	..	..	..	..	..	..	1	..	1	3
..	..	..	..	..	..	..	..	..	..	..	..	..	Stricture of colon	..	..	..	..	1	..	..	..	..	..	..	..	1
1	..	..	1	..	..	..	..	..	..	..	..	..	" of œsophagus	..	..	..	..	..	..	..	..	..	..	..	..	..
1	..	..	..	..	..	..	..	..	..	1	..	..	" of rectum	..	..	..	..	..	..	..	..	..	..	..	..	..
3	..	1	..	..	..	..	..	1	1	..	..	..	" of urethra	..	..	..	..	..	..	..	..	..	..	..	..	..
27	4	1	3	1	1	3	1	3	6	2	..	2	Suicide	2	1	..	..	..	..	2	1	2	2	..	..	10
16	..	..	..	..	2	12	2	..	..	..	..	..	Sunstroke	..	..	..	..	..	..	2	..	..	..	..	..	2
16	..	2	1	2	2	2	..	1	1	2	1	2	Syphilis	2	1	..	2	..	..	..	1	..	2	..	1	9
23	1	2	1	2	7	5	2	2	1	..	..	..	Teething	..	..	2	..	2	..	8	6	3	2	..	2	25
4	..	..	..	..	..	1	..	..	1	1	1	..	Tetanus	..	..	..	..	..	..	..	..	..	..	..	..	..
1	..	..	..	..	1	..	..	..	..	..	..	..	Thrush	..	..	..	..	..	..	..	..	..	..	..	..	..
7	..	..	1	..	1	1	..	2	..	..	2	..	Tumor	7	..	1	4	2	3	4	2	..	4	3	2	32
8	..	..	1	2	2	1	..	1	..	..	1	..	Ulcers	1	..	..	..	..	1	2	..	1	1	..	..	6
3	..	..	..	1	..	..	..	..	..	..	2	..	Uræmia	..	1	1	..	..	..	..	..	..	..	1	..	3

CAUSES OF DEATH.— *Concluded.*

Males.													Causes of Death.	Females.												
Totals.	Dec.	Nov.	Oct.	Sept.	Aug.	July.	June.	May.	April.	March.	Feb.	Jan.		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
14	. .	. .	1	2	2	2	1	. .	3	1	2	. .	Unknown	1	4	. .	3	2	1	1	2	. .	. .	2	1	17
19	4	3	2	1	. .	1	1	1	3	2	. .	1	Whooping-cough	2	1	2	1	. .	1	1	3	6	3	1	10	31
4110	343	250	281	320	413	437	251	306	361	383	373	392		412	334	343	315	269	287	426	438	323	329	287	330	4093

NOTES ON THE CAUSES OF DEATH.

Zymotic Diseases.

The deaths from eleven of the principal zymotic diseases make 27.20 per cent. of the whole mortality. This is a reduction in this class of diseases, compared with the preceding year, of 1.27 per cent.

Cholera Infantum. — There were 542 deaths from this cause, — a decrease of 142 from the number recorded in 1875. The sexes were 282 males and 260 females. The percentage on the total mortality was 6.61, one per cent. less than it was in the preceding year. The deaths in the several wards and public institutions may be seen in the following: —

Wards.	Deaths.	No. of population to one death.	Wards.	Deaths.	No of population to one death.
1	19	752.89	14	41	468.49
2	23	688.83	15	21	673.43
3	12	955.83	16	24	627.33
4	10	1,145.70	17	10	1,411.20
5	10	1,154.50	18	7	1,916.00
6	40	453.52	19	43	446.58
7	22	581.27	20	31	508.64
8	20	621.35	21	8	1,482.75
9	18	718.00	22	30	621.66
10	14	765.36	23	12	1,054.25
11	11	1,295.00	24	22	1,152.41
12	23	663.00	Institut'ns	12	
13	59	377.51		542	

Of all the deaths from cholera infantum 22.32 per cent. of them occurred in the three South Boston wards, 13, 14, and 15. There were only 7 deaths from this disease in Ward 18, and 8 in Ward 21. Wards 13, 19, 6, and 14, in the order in which they are here named, show the largest relative mortality. Of the whole number who died in South Boston 1 in 10.97 died of this disease.

The deaths in Ward 25 are included in those of Ward 22 (Brighton), the former ward having been set off from the latter in May of last year.

Cholera-morbus. — The number of deaths reported from

this disease was 21, — 10 males and 11 females; a decrease of ten compared with the preceding year. Nine of the whole number occurred in South Boston.

Croup. — There were 123 deaths reported from this cause, — 64 males and 59 females; a decrease of 91 compared with 1875. It will be seen, however, that there was a large increase of the mortality from *diphtheria*, the increase being no less than 204. It is quite certain that an exact discrimination has not, in all instances, been made by physicians in reporting the deaths from these two diseases. The deaths from the two causes number 747, making 9.11 per cent. of the entire mortality. In 1875 they made a little over 7 per cent. of all the deaths of that year.

WARDS.	Croup.	Diphtheria.	WARDS.	Croup.	Diphtheria.
1	6	35	15	8	35
2	2	43	16	3	30
3	6	36	17	3	15
4	2	32	18	1	12
5	1	21	19	11	42
6	7	12	20	3	32
7	4	8	21	4	16
8	3	16	22	9	36
9	2	13	23	2	29
10	3	12	24	5	24
11	1	25	City Hospital	2	3
12	7	32	Mass. Hospital	. . . .	1
13	15	36	St. Mary's Inf. Asylum	1	. . . .
14	12	28		123	624

The deaths from the two causes in South Boston make 17.94 per cent. of the whole number, or one death in each 416 of the population of those wards. The prevalence of these diseases in East Boston, however, was relatively greater, there being one death in each 350.56 of the population in that part of the city. There were 98 deaths from the same causes in the three Charlestown wards (3, 4, and 5), showing one death in 351.76 of the population there, differing very slightly from the mortality of East Boston. In contrast with this exhibit it will be seen that, in Wards 6, 7, 8, and 12, where a larger relative mortality might be looked for, there was only one death in 658.35 of the aggregate

population of those wards. The deaths in Ward 19 were 1 in 362.51, showing a slight improvement on East Boston and Charlestown. The ratio in Dorchester (Ward 24) was 1 in 476 86.

Diarrhœa and Dysentery. — The number of deaths reported from these two causes was 274, — 178 of the former and 96 of the latter, — making 3.34 per cent. of the whole mortality. In the preceding year the percentage of deaths from diarrhœa and dysentery was almost identical with that of last year, being 3.37. The distribution of deaths from the two diseases is given in the following table : —

Wards.	Diarrhœa.	Dysentery.	Wards.	Diarrhœa.	Dysentery.
1	. . . .	2	17	6	4
2	4	3	18	5	3
3	1	7	19	9	1
4	5	1	20	1	3
5	1	4	21	6	1
6	17	3	22	5	6
7	3	3	23	2	1
8	4	4	24	. . . .	2
9	5	7	City Hospital	5	5
10	9	3	Mass. Hospital	1	2
11	7	1	St. Mary's Inf. Asylum	4	. . . .
12	15	4	Deer Island	5	. . . .
13	23	10	Rainsford Island . . .	1	1
14	10	3	Other institutions . .	5	2
15	6	4			
16	13	6		178	96

The total number of deaths from cholera infantum, diarrhœa, dysentery, and cholera-morbus, was 837, making 10.20 per cent. of the mortality from all causes. In 1875 there were 1,017 deaths from these diseases, making 11.35 per cent. of all the deaths of that year. Nearly 34 per cent. of the mortality from these four causes occurred in the three South Boston wards (13, 14, 15), which is in the ratio of 1 death in each 66.45 of the population of those wards.

Scarlatina. — The number of deaths thus reported was 432, — a decrease of 123 compared with the preceding year,

— making 5.24 per cent. of the deaths from all causes, against 6.20 per cent. in the preceding year. The deaths in the several wards are seen in the following: —

Wards.	Deaths.	Wards.	Deaths.	Wards.	Deaths.
1	15	10	8	19	28
2	17	11	14	20	26
3	8	12	12	21	17
4	7	13	41	22	34
5	10	14	32	23	15
6	17	15	42	24	22
7	8	16	17	City Hospital .	3
8	12	17	11		
9	4	18	12		432

It will be seen by the foregoing that 26.62 per cent. of the deaths from scarlatina occurred in South Boston. The population of that part of the city makes 15.84 per cent. of the entire population, and the ratio of deaths from this disease to the same was 1 in 483.68. There were but 4 deaths in Ward 9, and 8 each in Wards 7 and 10.

Typhoid Fever. — There were 148 deaths reported from this disease, — 77 males and 71 females, — a decrease of 83 compared with 1875, and 55 less than were reported in 1874. There were but 10 deaths from this cause in East Boston, or 1 in 3,014.8 of the population of that place; and 11 in Charlestown, or 1 in 3,134. Only 12 deaths occurred in Wards 16, 17, and 18, which is one death in 3,548 of the population of those wards. It will be remembered that the district formed by the last three wards is generally regarded as lacking in proper drainage, a condition popularly supposed to be provocative or productive of typhoid fever. The apprehension existing in this particular does not, in view of the facts above stated, seem to be particularly warranted. The following table exhibits the mortality from this disease in the several wards. There was not a death from this cause in Ward 21: —

Wards.	Deaths.	Wards.	Deaths.	Wards.	Deaths.
1	4	10	4	19	12
2	6	11	5	20	7
3	2	12	6	22	9
4	7	13	12	23	7
5	2	14	5	24	4
6	7	15	4	City Hospital . .	9
7	7	16	2	Mass. "	9
8	2	17	4	Deer Island . . .	1
9	5	18	6		148

Measles. — There were but three deaths reported from measles, one in Ward 15, one in Ward 19, and one in Ward 20. In the preceding year there were 70 deaths from this disease.

Meningitis, Cerebro-spinal. — The number of deaths reported from this cause was 13, against 41 in 1875. They were thus distributed: In East Boston, 2; in Charlestown, 2; Ward 6, 1; Ward 10, 2; Ward 12, 1; South Boston, 3; Ward 21, 1; and Ward 24, 1.

Whooping-Cough. — The number of deaths from whooping-cough was 50, — an increase of 10 compared with the preceding year, 16 of which occurred in South Boston.

Of the 2,232 deaths from the zymotic diseases, enumerated in the foregoing summary, 72 (3.23 per cent. of the whole number) occurred in the several hospitals and other public institutions. The number of deaths from these diseases in the several wards, exclusive of those last named, with the ratio of deaths to the population of each ward, will be seen in the following; the deaths in Ward 25 are embraced in Ward 22: —

Wards.	Deaths.	No. of population to one death.	Wards.	Deaths.	No. of population to one death.
1	85	168.29	14	140	132.20
2	103	153.81	15	129	109.63
3	74	155.00	16	97	155.21
4	65	176.26	17	55	256.58
5	50	230.90	18	47	285.34
6	108	167.97	19	150	128.09
7	58	220.31	20	109	144.66
8	63	197.25	21	56	211.79
9	55	230.90	22	134	139.19
10	56	191.34	23	69	183.35
11	66	215.68	24	80	172.86
12	103	148.03			
13	208	107.08		2,160	

CONSTITUTIONAL DISEASES.

Cancer. — The number of deaths from cancer was 164, — 47 males and 117 females; an increase of 8 compared with the preceding year, and making nearly 2 per cent. of the deaths from all causes. Of all the male decedents, 1 in 87.45, and of the females, 1 in 34.98, died of cancer. The local manifestation of the disease (except in eleven instances), with the sex and ages of the decedents, are seen in the following table: —

TABLE XIII. DEATHS FROM CANCER, AGES OF DECEDENTS, AND LOCALITIES OF THE DISEASE.

	Ages		Ages		Ages		Ages
Males.	*Yrs.*	Liver	65	Pylorus . . .	65	Stomach . . .	49
Arm	30	"	51	Rectum . . .	40	" . . .	30
Bowels	66	"	59	Stomach . . .	42	" . . .	56
"	42	" and duodenum . . .	65	" . . .	77	" . . .	46
"	67	Lungs	60	" . . .	60	" . . .	62
Chin	64	Neck	65	" . . .	61	" . . .	70
Face	59	"	63	" . . .	60	" . . .	62
Leg	15	Œsophagus . .	68	" . . .	62	" . . .	40
Lip	62	Penis and groin	69	" . . .	29	" and liver	64
Liver	47	Prostate gland	86	" . . .	57	Shoulder . . .	23

TABLE XIII. — *Continued.*

	Ages		Ages		Ages		Ages
Males.	*Yrs.*	Breast	58	Stomach . . .	21	Uterus	67
Thigh	33	"	54	" . . .	53	"	41
Throat	49	"	61	" . . .	60	"	50
"	52	"	58	" . . .	66	"	54
Tongue	48	"	73	" . . .	70	"	62
"	65	"	46	" . . .	37	"	62
"	73	"	55	" . . .	56	"	47
Seat not given .	60	"	29	" . . .	69	"	48
"	40	"	60	" . . .	46	"	32
Total males .	47	"	46	" . . .	65	"	59
		"	49	" . . .	39	"	46
Females.		" and side	35	" . . .	44	"	48
Bowels	48	Face	95	" . . .	50	"	40
"	31	"	60	" . . .	55	"	34
"	63	Dorsal vertebræ	59	" . . .	78	"	38
"	40	Groin	48	" . . .	62	"	73
"	67	Liver	62	" . . .	30	"	67
Breast	48	"	47	" . . .	47	"	52
"	62	"	60	" . . .	29	"	57
"	79	"	49	" . . .	61	"	46
"	54	"	50	" . . .	66	"	45
"	42	"	70	" . . .	70	Seat not given .	51
"	44	"	50	" . . .	57	" .	70
"	70	"	54	" . . .	57	" .	83
"	79	"	34	" . . .	45	" .	51
"	66	Neck	16	" . . .	32	" .	71
"	61	Pylorus . . .	45	Thigh	35	" .	63
"	55	Rectum . . .	27	Uterus	66	" .	60
"	57	" . . .	57	"	47	" .	38
"	62	Side	67	"	62	" .	43
"	53	Stomach . . .	52	"	50	Total females .	117
"	81	" . . .	62	"	58		
"	56	" . . .	62	"	39		

Consumption. — The number of deaths from this disease was 1,268, — 606 males and 662 females; a decrease of 58 compared with the record of 1875, making 15.46 of the whole mortality. The percentage in 1875 was 15.15. The above number includes those who were reported as having died from hæmoptysis and tuberculosis. The ages and sex of the decedents are shown in the following: —

Ages	Under 1.		1 to 5.		5 to 10.		10 to 15.		15 to 20.		20 to 30.		30 to 40.		40 to 50.		50 to 60.		Over 60.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Deaths	17	18	18	19	4	17	5	5	41	56	186	216	130	150	97	82	53	51	55	48
Per cent.	2.76		2.92		1.66		.79		7.65		31.70		22.08		14.12		8.20		8.12	

In the first two periods the female decedents exceed the males by one in each, and in the third by 13. In the fourth the sexes are equal in number. In the three succeeding periods, the females outnumber the males in each by 15, 30, and 20 respectively. It will be noticed that 53.79 per cent. of the decedents were between 20 and 40 years of age, 31.70 per cent. being between 20 and 30. The ratio of the deaths from consumption to the deaths from all other causes was 1 in 6.78 of the males, and 1 in 6.18 of the females. The birthplaces of the decedents are given in the following table; those under 20 years are classed according to the nativity of their fathers: —

BIRTHPLACES.	Deaths.	Per ct.	BIRTHPLACES.	Deaths.	Per ct.
United States	534	42.11	Azores	3	.24
Ireland	517	40.77	France	2	.16
British America	104	8.20	Spain	1	.08
Germany and N. Europe	40	3.15	China	1	.08
England	31	2.44	Other foreign places	13	1.03
Scotland	11	.87	Unknown	7	.55
Italy	4	.32		1,268	100.00

The following table exhibits the number of deaths from consumption in each ward (with the exception of those that occurred in the hospitals), and the ratio of deaths from this disease to the whole mortality in the same localities: —

Wards.	Deaths.	No. of population to one death.	Wards.	Deaths.	No. of population to one death.
1 } E. Boston . {	30	476.83	13 } S. Boston . {	103	216.24
2 } E. Boston . {	36	441.10	14 } S. Boston . {	45	426.84
3 } Charlestown {	34	337.35	15 } S. Boston . {	42	336.71
4 } Charlestown {	42	272.78	16	42	358.48
5 } Charlestown {	44	262.39	17	35	403.20
6	84	215.96	18	31	432.61
7	47	271.70	19 } Roxbury . {	46	417.67
8	65	191.18	20 } Roxbury . {	52	303.23
9	48	269.19	21 } Roxbury . {	18	658.89
10	23	465.87	22 (Brighton) . .	55	339.09
11	27	527.22	23 (W. Roxbury) .	22	575.05
12	64	238.23	24 (Dorchester) .	37	373.76

Ward 8 exhibits the largest ratio of deaths from consumption, and Ward 21 (Roxbury) the smallest. It will be interesting to notice a few facts contained in the foregoing table. It will be seen that in Ward 23 (West Roxbury) the deaths from consumption were in the ratio of 1 in 575.05 of the population of that place. In Roxbury (Wards 19, 20, 21), the ratio was 1 in 403.80. In Ward 24 (Dorchester), it was 1 in 373.76. In Brighton (Ward 22), 1 in 339.09. In East Boston (Wards 1 and 2) the ratio was 1 in 456.79. In Wards 13, 14, 15 (South Boston) it was 1 in 292.75. In Charlestown (Wards 3, 4, 5) it was 1 in 287.27. In Wards 6, 7, 8, comprising localities contiguous to each other, with a population of a similar character, the ratio was 1 in 221.15. In Ward 9, situated on elevated ground, and almost enclosed by the Charles river and the Common, the ratio was 1 in 269.19, differing slightly from that of Wards 6, 7, and 8. In the district composed of Wards 11, 16, 17, 18, adjoining each other, a section embracing about 738 acres, almost half of which is of made land, and none of it above high-water mark, the ratio was only 1 in 420.84.

Hydrocephalus and Tub. Meningitis. — The number of deaths thus classed was 162, — 83 males and 79 females, — a decrease of 16 compared with the preceding year.

Marasmus and Tabes Mesenterica. — The number of deaths from these causes was 367 — 200 males and 167 females, — making 4.47 per cent. of all the deaths. In 1875 there were 356 deaths thus reported, making 3.97 of the whole mortality of that year.

Local Diseases.

Apoplexy and Paralysis. — There were 240 deaths thus reported, 160 of the former, and 80 of the latter, — an increase of 84 compared with 1875, and making 2.93 of the whole mortality.

Brain, Diseases of. — There were 286 deaths reported from brain diseases, — a decrease of 53 from the number recorded in 1875, — making 3.49 per cent. of the whole mortality. Nearly all of those instances recorded as "diseases of the brain" (221 in number) were reported as *meningitis.*

Heart, Diseases of. — The number of deaths from diseases of the heart was 369, — an increase of 47 compared with the preceding year, making 4.50 per cent. of all the deaths. The following table contains 108 instances in which the specific forms of the disease were given by the attending physicians. An effort was made to ascertain the nature of every case, but it was found to be a difficult task.

	Ages.
Males.	*Yrs.*
Angina Pectoris . . .	64
Carditis	2
Endocarditis	35
"	12
"	62
Fatty degeneration . .	80
" . .	58
" . .	59
" . .	55
" . .	50
" . .	62
Heart clot	76
Hypertrophy	24
"	35
"	13
"	48
"	75
"	35
"	48
"	58
Ossification coronary arteries	85
" "	70
" "	90
Pericarditis	57
"	54
"	55
"	57
"	42
"	42
"	2
"	7
"	1
Valvular	63
"	75
"	79
"	47
"	55

	Ages.
Valvular	77
"	35
"	27
"	81
"	67
"	69
"	18
"	70
"	28
"	53
"	5
"	47
"	64
"	47
"	36
"	49
Total males	53
Females.	
Angina Pectoris . .	68
" . .	50
" . .	57
" . .	38
Carditis	22
Endocarditis	6
"	74
"	45
"	12
"	24
Fatty degeneration .	66
" .	70
" .	55
" .	75
Heart clot	70
"	21
Hypertrophy	72
"	66
"	31

	Ages.
Hypertrophy	35
"	32
"	12
"	49
"	53
"	70
"	42
"	35
"	33
Pericarditis	3
"	2
"	4
"	13
"	63
"	5
"	65
"	42
"	8
Valvular	43
"	58
"	82
"	56
"	11
"	56
"	53
"	3
"	24
"	41
"	63
"	14
"	56
"	44
"	60
"	55
"	22
"	76
Total females . . .	55

Bronchitis. — The number of deaths from this disease was 231, making 2.82 per cent. of the whole mortality. Those who died of bronchitis in the preceding year made 2.89 per cent. of all the decedents. There has been but a slight variation in the number of deaths reported from this cause in the last ten years.

Pneumonia. — The number of deaths from pneumonia was 523; a decrease of 109 from the number reported in 1875, making 6.38 per cent. of all the deaths. In 1875 the deaths from this disease made 7.06 per cent. of the mortality from all causes in that year. There were 75 deaths reported as caused by "congestion of lungs." The mortality from both classes make 7.29 per cent. of all the deaths.

Enteritis. — There were 78 deaths thus reported, — an increase of 6 over the preceding year, — which, with 40 deaths from peritonitis, make 1.44 per cent. of the whole mortality, almost identical with that of the preceding year, when it was 1.45.

Gastritis. — There were 39 deaths thus reported, against 58 in the preceding year.

Hernia. — There were 15 instances of hernia, — 5 males and 10 females. Of the male cases, 3 were strangulated hernia, 1 umbilical, and 1 scrotal. Of the female, 5 were strangulated, 3 inguinal, and 2 umbilical.

Liver, Diseases of. — There were 68 deaths from diseases of the liver; a decrease of 11 from the number reported in 1875.

Nephria (Bright's Disease). — The number of deaths reported from this disease was 86; a decrease of 6 compared with 1875. 49 were males, and 37 females. The total deaths from diseases of the kidneys made 1.41 per cent. of all the deaths, the identical percentage of the preceding year.

Tumors. — There were 39 deaths thus reported, the same number that were recorded in 1875. Their locations were, — ovarian, 16; uterus, 8; neck, 6; bowels, 4; brain, 3; stomach, 2.

Developmental Diseases.

Premature Birth. — The number of deaths of this character was 135, — 76 males and 59 females; an increase of 11 over the number of the preceding year.

Malformations. — There were 59 deaths of this class; an increase of 8 compared with 1875. They were thus reported: cyanosis, 35 (21 males, 14 females); spina bifida,

15 (7 males, 8 females); imperforate rectum, 2 (male and female); throat, 1; bowels, 1; brain, 1; not named, 4.

Puerperal Diseases. — There were 100 deaths reported of causes connected with childbirth; 20 less than were recorded in 1875. As there were 930 female decedents who were married at the time of death, it will be seen that 1 in 9.30 of that number died from diseases incident to childbirth. In the preceding year the ratio was 1 in 7. The several cases were reported as follows: —

Ages of Decedents.	17 to 20	20 to 25	25 to 30	30 to 35	35 to 40	40 to 42
Abortion	....	....	2	2	3	1
Convulsions	1	1	2	2	1	....
Metria	2	5	7	4	6	1
Metritis	....	....	1	2	1	1
Pelvic deformity	....	....	1	....	....	....
Peritonitis	2	4	11	6	6	2
Post-partem Hæmorrhage	1	3	1	1	....	....
Puerperal Septicæmia	....	1	....	....	....	....
Rupture of Uterus	....	....	....	....	1	....
Unskilful delivery	....	1	....	....	....	....
Not given	1	3	2	4	4	....
Totals	7	18	27	21	22	5

Old Age. — There were 226 deaths thus reported, — 70 males and 156 females; 31 less than were reported in 1875.

Violent Deaths.

Accidents. — The total number of deaths from external causes was 307, seven more than were recorded in the preceding year. The deaths, except in a few instances, were of the following character: —

	No.		No.
Drowned	65	Neglect and exposure	4
On railroads	41	Frozen	2
Burned and scalded	24	Crushed by elevator	3
Sunstroke	18	Caught by hook in throat	1
Fell down stairs	19	Fractures of legs and arms	9
" from windows	10	" skull	6
" buildings	8	" spine	3
" staging	3	Suffocated	3
" teams	2	" by coal gas	1
" platform	1	" milk in trachea	1
" vessel's mast	1	" foreign body in trachea	1
" on sidewalk	5	Killed while moving house	1
" through scuttle	1	Kicked by horse	1
" " hatchway	1	" a boy	1
" down elevator well	1	Burned by hot fat	1
" into vessel's hold	1	Jumped from carriage	1
Other falls	6	Crushed by cask on shipboard	1
Fall of derrick	1	Explosion of boiler	1
" timber	1	" gas-pipe	1
" door	1	Killed by lightning	1
Falling in of gas well	1	Amputation of leg	1
Run over by vehicles	6	Removal of tumor	1
Thrown from "	3	By mercury	2
" horse	2	" morphine	6
Injured at birth	10	" Paris green	1
" by machinery	5	" æther	1
" drawbridge	1	" chloroform	1
" horse sled	1	Drank alcohol	1
" while coasting	1	Ate fly-paper	1
Gunshots	5	Other accidents	4
		Total	307

Homicides. — There were 14 instances of murder, — 5 more than were recorded in 1875.

Suicides. — There were 37 deaths of this character, — 8 less than occurred in the preceding year. 27 of these were males, and 10 were females. The methods employed in effecting death were thus given: —

	Males.	Females.		Males.	Females.		Males.	Females.
By shooting	11	. .	By morphine . .	1	1	Jumped from window	. .	1
hanging . .	6	1	opium	. .	2	" " building	1	. .
drowning . .	3	. .	Paris green .	1	1	" into furnace .	1	. .
cutting throat	2	. .	phosphorus .	1	. .	Total	27	10
corrosive sub.	. .	3	arsenic . . .	. .	1			

It is not difficult to perceive in the modes chosen for self-destruction the moral and physical characteristics of the two sexes. The most violent and repulsive forms of death, except in two instances, have been avoided by the females. Of the 26 who took their own lives by the grosser methods, but two were females. It would not seem very inapt, therefore, to regard some forms of suicide as naturally feminine in character, while others might be looked on as peculiarly masculine.

TABLE XIV. CAUSES OF DEATH BY MONTHS, ARRANGED ACCORDING TO THEIR CLASSES AND ORDERS.

CAUSES OF DEATHS.	Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Totals.
CLASS I. *Zymotic Diseases.*													
Miasmatic	279	180	158	140	115	123	354	380	228	172	114	173	2,416
Enthetic	4	2	2	3	1	. .	2	3	2	3	2	1	25
Dietic	3	6	3	3	1	3	3	1	6	5	1	3	38
Parasitic	. .	. .	. .	1	. .	. .	1	1	. .	. .	. .	. .	3
CLASS II. *Constitutional Diseases.*													
Diathetic	12	21	19	22	23	18	25	25	20	11	20	20	236
Tubercular	154	158	152	170	140	149	155	176	126	160	123	156	1,819
CLASS III. *Local Diseases.*													
Of Nervous system	64	64	77	65	51	47	73	53	61	47	56	69	727
" Circulatory system	35	40	38	39	33	20	21	20	29	37	41	35	388
" Respiratory system	110	110	122	98	77	50	46	38	39	65	59	88	902
" Digestive system	27	29	37	22	25	23	38	37	36	22	22	25	343
" Urinary system	12	14	19	16	14	15	13	16	6	13	14	8	160
" Generative system	4	. .	. .	4	1	4	5	2	. .	2	3	2	27
" Locomotory system	. .	2	1	1	. .	. .	1	. .	4	2	. .	3	14
" Integumentary system	. .	1	1	3	3	1	2	. .	2	. .	1	. .	14

CLASS IV. *Developmental Diseases.*													
Of Children	31	21	37	21	25	34	49	51	38	24	26	23	380
" Women	12	6	6	9	7	11	3	4	3	3	8	4	76
" Old people	33	22	24	20	21	14	15	8	11	17	19	24	228
" Nutrition	1	1	2	1	. .	. .	4	1	2	. .	1	5	18
CLASS V. *Violent Deaths.*													
Accident or neglect	17	21	21	24	31	17	29	26	26	21	23	29	285
Sunstroke	. .	. .	. .	. .	. .	2	14	2	. .	. .	. .	. .	18
Homicide	1	2	1	1	1	3	2	1	. .	. .	1	. .	13
Suicide	4	1	2	7	3	1	5	2	3	5	1	4	38
Execution	. .	. .	. .	. .	1	. .	. .	. .	. .	. .	. .	. .	1
Not specified	1	6	4	6	2	3	3	4	1	1	2	1	34
Totals	804	707	726	676	575	538	863	851	643	610	537	673	8,203

The percentages of deaths from the several classes of diseases, as exhibited in the foregoing table, are shown in the following: —

Zymotic Diseases.	Per ct.	Per ct.
Miasmatic	29.45	
Enthetic	.30	
Dietic	.46	
Parasitic	.04	30.25
Constitutional Diseases.		
Diathetic	2.88	
Tubercular	22.18	25.06
Local Diseases.		
Of Nervous system	8.87	
Circulatory system	4.73	
Respiratory "	11.00	
Digestive "	4.18	
Urinary "	1.95	
Generative "	.33	

Local Diseases.	Per ct.	Per ct.
Of Organs of Locomotion	.17	
Integumentary system	.17	31.40
Developmental Diseases.		
Of Children	4.63	
Women	.93	
Old People	2.78	
Nutrition	.22	8.56
Violence.		
Accident or Neglect	3.69	
Suicide	.46	
Murder	.16	
Execution	.01	
Otherwise	.41	4.73
		100.00

It will be seen that the deaths from zymotic diseases made 30.25 per cent. of the whole mortality. In 1875 the percentage of deaths from this class of diseases was 31.79.

General Remarks.

A notion prevails, to some extent, that the registration of vital statistics belongs to the domain of medicine. Such is not the case. It has about as much to do with medical science, or with sanitary matters, as the thermometer has to do with cold and heat. Mortality statistics do indeed indicate the existence of disease, and relate to the duration of human life; but they have no agency in the treatment or removal of disease, nor do they furnish or suggest the means for doing so. They are simply matters of fact; and while they demand carefulness and experience for their proper collection and arrangement, they are entirely within the comprehension of any one of ordinary intelligence who has an aptitude for the work. Their sole office is to furnish materials for investigation, and thereby add to the common stock of

knowledge. In the preparation of these materials, as before remarked, intelligence and carefulness, aided by experience, are the only qualifications that are needed.

The registration of births, marriages, and deaths in the town of Boston was instituted soon after its settlement in 1630. That the importance of the subject was more or less appreciated by the early settlers is evident from the fulness of the records during the succeeding fifty years. During the following one hundred years considerable negligence is discernible, as the records are meagre and incomplete. From the year 1800, however, to the present time (with the exception of those of deaths from 1800 to 1810), they appear in better condition, and have continued to improve, without interruption, until the present time.

At the outset the facts registered were few in number, being merely the date of birth, and name of child, with those of its parents. In the case of marriages, the names of the parties and of the officiating clergyman, with the date of marriage, were all the items entered on the record. There were no intentions of marriage recorded prior to 1707. In the record of deaths the name of the decedent, date of death, cause of death, burial place, and name of the undertaker, with few unimportant exceptions, were all that were then required. This condition existed, with an occasional alteration in the registration law by the General Court, until 1849, when a radical change was effected in the law by the addition of several items to the official record. The present system is substantially the one then perfected, and is followed in all the towns of this Commonwealth. As a matter of curiosity, as well as of information, the facts now entered on the records are given below: —

BIRTHS.

No. of birth.	Place of birth. (Street and no.)	Occupation of father.
Date of birth.	Names of parents.	Birthplace of father.
Name of child.	Residence of parents.	Birthplace of mother.
Sex.		

MARRIAGES.

No. of marriage.	Ages of the parties.	Names of parents.
Date of marriage.	Occupation of groom.	No. of times married.
Names of parties.	Birthplace of groom.	Name of clergyman.
Residence of each.	Birthplace of bride.	Date of return.

DEATHS.

Date of registration.	Occupation.	Birthplace of mother.
Date of death.	Birthplace.	Cause of death. (Primary and secondary.)
Name of deceased.	Name of father.	Duration of disease.
Age of deceased.	Name of mother.	Place of interment.
Place of death. (Street and no.)	Birthplace of father.	Informant.

It will be seen that the information contained in the above lists comprises almost everything of value in the registration of vital statistics. In this connection it will not be improper to say that the records of marriages of Boston are full and complete, as no certificate of intentions of marriage is ever issued without the above enumerated items. As to the accuracy of the record itself, something perhaps may be claimed on the ground of twenty-four years' experience, — a longer service in such work than has been rendered by any other recording officer in this country.

The foregoing remarks were suggested by a paragraph in a daily journal in January last. A New York correspondent of that paper writes: —

A Visiting Boston Official. — Dr. ———, of Boston, paid a visit Saturday morning to the Brooklyn Health office. Dr. ——— expressed gratification at the system employed for recording statistics, especially in the Registrar's bureau, which, he said, surpassed in its thoroughness and details a similar bureau in his own office.

I am unaware of the existence in Boston of any bureau for the registration of vital statistics other than that belonging to the City Registrar's department; I therefore presume that the above paragraph alludes to this office. It is not my desire to cavil at anything that may be said in praise of the methods employed elsewhere in the registration of vital statistics; but I do intend to repel the inconsiderate assertion that the methods of registration in any place are more thorough in their operation than those employed in Boston at the present time. Of the truth of this unequivocal assertion the records themselves will afford the most convincing proof.

The reader is requested again to refer to the list of items on a previous page, which the law requires to be registered. An examination of the Boston records will show that those items have been registered with undeviating regularity, without omissions (except in cases before mentioned), conforming to the requirement of the law in every particular. If such is the case, it is not easy to comprehend the reason for Dr. ———'s disparaging criticism.

It is not impertinent to ask, if Dr. ——— has examined into the methods of registration employed in this office? Indeed, has he ever seen the inside of one of the record books? If he has done either, the fact has altogether escaped my notice. I do not feel particularly sensitive on the subject; but I am unwilling that unauthorized assumption should be allowed to impress those who have no per-

sonal knowledge of the subject, without an attempt to place it in its proper light.

I have the pleasure of a slight acquaintance with Dr ———, who is an estimable gentleman, and quite above committing an intentional error on this subject; but he is not the first man, nor, it is feared, will he be the last, who has been led to pronounce an opinion on matters of which he had but little knowledge. I am not aware that Dr. ——— has had any extensive experience in practical registration. To be a skilful physician, which he doubtless is, does not necessarily endow him with the qualifications necessary for a recording officer. Neither will the knowledge he may have acquired for the treatment of the sick enable him to express an intelligent opinion as to the completeness of a work, without an examination or a knowledge of the work itself.

It is a pity that Dr. ——— had not read with more care even the reports of the New York Board of Health. He would have learned from them that the methods employed in the Health office of that city for the registration of vital statistics (so far as those of births and marriages are concerned) are not set forth therein as more thorough than those of Boston. The registration of deaths in New York is undoubtedly such as to leave little room for improvement. As the same facts are recorded here, and with like precision and regularity, perhaps nothing more need be said on this point. But in regard to the records of births and marriages of that city, it is well to have it known, that in nearly every report of the New York Board of Health, from 1866 to 1874, the regret is expressed for their imperfect character. And what makes those utterances more significant is the fact, that in several instances they are accompanied with emphatic commendations of the manner in which these two branches of vital statistics are registered in Boston and Providence. Repeatedly these two cities have been designated as the only places in the United States where a nearly perfect system of birth and marriage registration exists, and where it is carried out in a "common-sense" manner.

Marriages.

The large decrease in the number of marriages solemnized during the last two years is set forth in another part of this report. One cause of this large diminution in the marriage rate may be similar to that alluded to by the late Mr. Buckle in his "History of European Civilization": —

Even the number of marriages annually contracted is determined, not by the temper and wishes of individuals, but by large general facts, over which individuals can exercise no authority. It is now known that marriages bear a fixed and definite relation to the price of corn; and in England the experience of a century has proved that, instead of having *any connection with personal feelings*, they are simply regulated by the average earnings of the great mass of the people; so that this immense social and religious institution is not only swayed, but is completely controlled, by the price of food and the rate of wages.

That the "price of corn" and the "average earnings of the great mass of the people" may be an evidence of a condition suggested by the words of Mr. Buckle is true; but that the facts stated are the *cause* of that condition is not equally obvious. When it is remembered that the marriage relation is the legitimate expression of the most potent of the human instincts, which are unvarying and irrepressible in their manifestations, and that these instincts are rarely found subordinated to prudential considerations of any kind, it seems that Mr. Buckle's averment needs to be somewhat modified. The "price of corn," or "hard times," doubtless limits the number of those who assume the marriage relation; but there are other agencies at work, of a more subtle kind, which have not less influence in the same direction. The prevailing spirit of the age exhibits a perpetual struggle for something not attained; a disposition to throw off restraint; a general and almost universal tendency toward loosening the bonds of social cohesion. Thus unsettled and detached from all safe moorings, without rudder or compass, men drift along, and it is not difficult to see how they may be responsive to the conditions of their natural life without taking upon themselves its obligations. Whatever, in fine, may be the causes of the present diminished marriage-rate, the subject is one of no little importance, and deserves more thoughtful consideration than it is likely to receive. The careful observer will see in it more than one phase of human life, — one quite different from that which fills the vision of a materialist like Mr. Buckle.

HEALTH OF BOSTON.

Many apprehensions have been expressed during the past two or three years concerning the death-rate of Boston. Of all the vaticinations on the subject, even by those who assume to speak with authority, little has been predicted on any real knowledge of the existing facts, or of anything that would properly serve as a basis even for conjecture. The average Bostonian has been accustomed from birth to regard

this city of his as one peculiarly favored in a sanitary point of view, and has zealously and truthfully maintained that its sanitary laws were wisely conceived and faithfully executed. An examination of the mortality statistics for the last twenty-five years or more will justify that belief. The occasional advent of epidemics has sometimes shaken this conviction, but only for a brief period; for when these transient visitors have taken their leave all apprehensions have disappeared with them.

But — Is the present death-rate of Boston excessive? Is it larger than is usually found in other cities, of like extent, and possessing similar general characteristics? The death-rate in 1876 was 23.35 deaths in each thousand of the whole population. The yearly average for the last twenty-one years was 24.35 in a thousand. Some of those who have indulged in jeremiads concerning the public health, in the last few years, have expressed their belief with great positiveness that the death-rate ought to be less than 20 in a thousand; and it has even been declared possible to reduce it to 14 in a thousand. Now, it should be borne in mind that there is no fixed or arbitrary death-rate, as some might imagine from the remarks so confidently made; and that any opinion as to what is a proper one, unless it is based on a consideration of the facts of density of population, geographical position, climatic influences, etc., would be of very little value. The individual who hazarded the assertion that the death-rate of Boston need be no higher than that above indicated stated a proposition that he is unable to prove, and one, moreover, that he is not likely to see justified by the result. All that has been seen in the past affords no ground for expecting such a condition, and there is little else on which to base any reasonable predictions concerning the future.

Infantile Mortality.

Prior to 1849 the percentage of deaths of children under one year of age was small, compared with what is the case at the present time. From 1818 to 1849 the mortality among children of that age did not exceed 18.36 per cent. of the whole mortality in any year, and in some instances it had been as low as 9 per cent. Indeed, there are figures still lower than that, but I distrust their truthfulness. At the same time, the mortality of children under 5 years has varied but little from 1849 to the present time. In other words, the mortality among children under 5 years of age is not much

larger in 1876 than it was in 1849 and subsequent years. So, allowing the infantile mortality to be the gauge by which to measure the condition of the general health, it is evident that that condition has not become worse, even if it has not become better. But it is not certain that the large infantile mortality is due to any defect in sanitary regulations: it would not be difficult to find a sufficient cause in overcrowded and ill-constructed dwellings, presenting a condition not easily changed.

Respectfully submitted,

N. A. APOLLONIO,
City Registrar.

CITY REGISTRAR'S OFFICE, Sept. 17, 1877.

CITY OF BOSTON.

City Document No. 80.

AN ORDINANCE FOR THE OCCUPANCY OF STREETS FOR BUILDING PURPOSES.

Be it ordained by the Aldermen and Common Council of the City of Boston, in City Council assembled, as follows: —

SECTION 1. Every person wishing to occupy or use any portion of any of the streets for the erection or repair of any building upon land abutting thereon, shall make application therefor to the Inspector of Buildings, who, subject to the direction of the Board of Aldermen, shall have power and authority to grant permits for the occupation or use, for building purposes, of such part of any street, and for such length of time, and under such limitations and restrictions, as may be required by any ordinance, or by the public convenience; and all such permits may be revoked by the Inspector of Buildings at any time when the holders of them fail to comply with any rule or regulation under which they are granted, or when, in the opinion of the Inspector of Buildings, the public good requires such revocation. And the part or portion so allotted, if any, and no other part of said street, shall be used for laying all the materials for any such building or repairing, and for receiving the rubbish arising therefrom. And all the rubbish arising therefrom or thereby shall be carried away by the person or persons so building or repairing, at such convenient time as the Board of Aldermen or Inspector of Buildings may direct; and in case of neglect or refusal so to do, it shall be removed by the Superintendent of Streets, the Chief of Police, or the Deputy Chief of Police, at the expense of such person or persons.

SECT. 2. In all cases the space so allotted shall be enclosed with a sufficient fence, which shall be continued during the whole time such occupation exists. And a lighted lantern or lanterns, or some other proper and sufficient lights, shall be fixed to some part or parts of such fence, or in some other proper manner. And said lights or lanterns shall be

so kept lighted from the beginning of twilight every evening, through the whole of every night, during said occupation.

Sect. 3. Any person licensed or permitted as aforesaid to occupy any part of any street, while erecting or repairing any building, shall provide a safe and convenient passage around or over the same for public travel, and shall be responsible for any injury sustained in consequence of any neglect so to do.

Sect. 4. It shall be the duty of the Inspector of Buildings to see that the laws, ordinances, orders, and regulations, now or at any time in force respecting the use or occupancy of any street or part thereof, for the purpose of erecting, altering, or repairing or removing any building are observed and enforced.

Sect. 5. Any person violating any of the provisions of this ordinance shall be liable to a penalty of not less than two dollars nor more than fifty dollars for each offence, and to a like penalty for each day's continuance thereof.

In Common Council, Sept. 27, 1877.

Passed.

Sent up for concurrence.

BENJAMIN POPE,
President.

In Board of Aldermen, Oct. 1, 1877.

Concurred.

JOHN T. CLARK,
Chairman.

Approved Oct. 2, 1877.

FREDERICK O. PRINCE,
Mayor.

CITY OF BOSTON.

City Document No. 81.

AUDITOR'S MONTHLY EXHIBIT.

General and Special Appropriations for 1877–78.

Office of the Auditor of Accounts,
City Hall, October 3, 1877.

To the Honorable City Council: —

Gentlemen, — The undersigned, in compliance with the third Section of the Ordinance on Finance, herewith presents an Exhibit of the General and Special Appropriations for the present financial year of 1877–78, as shown in the books in his office, October 1, 1877, including the October draft, — being six monthly payments of the financial year, — exhibiting the original appropriations, the balances brought forward from the year 1876–77, the amount expended, and the balance of each unexpended at that date.

Respectfully submitted,

ALFRED T. TURNER,
Auditor of Accounts.

APPROPRIATIONS.

Object of Appropriations.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Additional Supply of Water	[1]$1,352,571 98	$586,438 45	$766,133 53
Advertising	2,500 00	752 84	1,747 16
Armories	22,000 00	9,733 87	12,266 13
Assessors' Department	92,167 00	64,558 75	27,608 25
Auditor's Department	15,650 00	7,570 26	8,079 74
Back Bay Streets and Avenues	[2]3,084 61	2,346 86	737 75
Beach Street	[3]594 00	. . . .	594 00
Bells and Clocks	3,580 00	945 07	2,634 93
Board of Health	68,900 00	25,916 13	42,983 87
Boston Harbor	5,000 00	2,061 03	2,938 97
Branch Library, W. Roxbury Dist.	[4]10,000 00	5,798 94	4,201 06
Bridges	53,293 00	26,492 97	26,800 03
Broadway Extension	[5]80,680 21	. . . .	80,680 21
Burnt District	[6]352,800 20	889 28	351,910 92
Cedar Grove Cemetery: Add Revenue received, $7,171 81	[7]5,217 75	11,431 27	958 29
Chelsea Bridge	[8]141,022 46	7,598 01	133,424 45
Chestnut Hill Driveway	3,500 00	2,738 19	761 81
City Debt	672,700 00	. . . .	672,700 00
City Hospital. Add Revenue on Funds, $251 40	[9]127,000 00	62,933 26	64,318 14
City Registrar's Department	9,650 00	3,475 86	6,174 14
Cochituate Water Works: Revenue, $226,783 10; Running Expenses, $119,863 74; Interest, 118,636 33; Proportion paid under contract, 5,849 90	. . . .	244,349 97	($17,566 87 prov. for.)
Collector's Department	42,600 00	20,192 60	22,407 40
Common, etc.	65,100 00	62,239 76	2,860 24
Com. Council Chamber ventilation,	[10]3,000 00	. . . .	3,000 00
Commonwealth Avenue, Fencing and Grading,	[11]11,555 46	3,328 67	8,226 79
Completion West Chester Park, etc.	150,000 00	59,283 53	90,716 47
Contingent Funds:			
Joint Committees	4,000 00	2,090 12	1,909 88
Mayor	3,000 00	259 75	2,740 25
Board of Aldermen	3,000 00	1,836 40	1,163 60
Common Council	3,000 00	1,191 67	1,808 33
County of Suffolk	365,000 00	137,159 78	227,840 22
Deeds, Real Est. Advertising, etc. Add Revenue received, $15,274 86	[12]9,176 60	13,362 51	11,088 95
East Boston Ferries	165,000 00	85,866,97	79,133 03
Carried forward	$3,846,343 27	$1,452,842 77	$2,660,548 54

[1] Brought from last year, $1,352,571 98
[2] Brought from last year, 3,084 61
[3] Brought from last year, 594 00
[4] Transferred from Reserved Fund, 10,000 00
[5] Brought from last year, 80,680 21
[6] Brought from last year, 352,800 20
[7] Brought from last year, $217 75
[8] Brought from last year, 26,022 46
[9] Brought from last year, 2,000 00
[10] Transferred from the Reserved Fund, 3,000 00
[11] Brought from last year, 5,555 46
[12] Brought from last year, 9,176 60

OBJECT OF APPROPRIATIONS.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward . . .	$3,846,343 27	$1,452,842 77	$2,660,548 54
Eastern Avenue and Bridge . .	[1]13,569 79	. . . .	13,569 79
Engineer's Department . . .	25,479 00	11,819 33	13,659 67
Engine House and Land, Fulton St.	[2]45,000 00	. . . .	45,000 00
English High and Latin School Buildings	. . . .	543 42	($543.42 provided for.)
Evergreen Cemetery: Add Revenue received, $88 00	[3]1,202 85	1,038 97	251 88
Fever Hospital, Gallop's Island .	2,500 00	2,073 22	426·78
Fire Alarm Telegraph . . .	[4]20,642 00	7,615 85	13,026 15
Fire Department	563,000 00	334,735 18	228,264 82
Francis Street School-house . .	[5]3,909 72	. . . .	3,909 72
Grammar School-house, Brighton District	[6]45,974 25	. . . .	45,974 25
Grammar School-house, Dorchester-Everett District	[7]19,194 97	19,058 42	136 55
Grammar School-house, Egleston Square	[8]10,397 13	1,749 63	8,647 50
Grammar School-house, Washington Village	[9]80,775 00	20,034 81	60,740 19
Health Department . . .	365,000 00	176,656 43	188,343 57
Home for Poor, Deer Island . .	[10]147,500 00	. . . .	147,500 00
Improved Sewerage . . .	[11]20,256 04	7,399 11	12,856 93
Incidental Expenses: Add income of Foss and Babcock Funds, $409 72	87,000 00	49,651 91	37,757 81
Inspection of Buildings . . .	[12]18,600 00	8,306 85	10,293 15
Interest and Premium . . .	1,698,000 00	631,872 56	1,066,127 44
Lamps	490,000 00	200,696 24	289,303 76
Law Department	18,440,00	8,345 82	10,094 18
Liquor License Expenses: Add Revenue rec'd, $251,668 00	[13]2,523 48	*70,859 05	183,332 43
Markets	9,295 00	4,328 94	4,966 06
Memorial Monument, Boston Common	[14]52,500 00	10,800 00	41,700 00
Mount Hope Cemetery: Add Revenue received, $8,865 23	[15]16,526 61	20,618 70	4,773 14
Mt. Washington Avenue Bridge .	[16]8,000 00	38 88	7,961 12
Mystic Sewer	[17]203,755 68	10,640 84	193,114 84
Mystic Water Works: Revenue, $74,254 51; Running expenses, $57,245 23; Interest, 12,810 00; Proportions paid under contracts, 11,058 17	. . . .	81,113 40	($6,858.89 prov. for.)
Carried forward . . .	$7,815,384 79	$3,132,840 33	$5,292,280 27

[1] Brought from last year, $13,569 79
[2] Brought from last year, 45,000 00
[3] Brought from last year, 202 85
[4] Brought from last year, 1,000 00
[5] Brought from last year, 3,909 72
[6] Brought from last year, 5,974 25
[7] Brought from last year, 16,194 97
[8] Brought from last year, 6,897 13
[9] Brought from last year, 80,775 00
[10] Brought from last year, $147,500 00
[11] Brought from last year, 20,256 04
[12] Transferred from the Reserved Fund, 4,600 00
[13] Brought from last year, 2,523 48
[14] Brought from last year, 52,500 00
[15] Brought from last year, 1,826 61
[16] Brought from last year, 8,000 00
[17] Brought from last year, 203,755 68

* Of this amount $61,490 00 were paid to State, being one-quarter of receipts for licenses, and $9,369 05 were expenses incurred under the law.

Object of Appropriations.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward, . . .	$7,815,384 79	$3,132,840 33	$5,292,280 27
Neponset Bridge	[1] 19,000 00	. . . .	19,000 00
New Engine Houses . . .	[2] 860 67	568 37	292 30
New Lunatic Hospital . . .	[3] 100,628 21	. . . .	100,628 21
Northampton Street District . .	[4] 20,532 27	15,247 79	5,284 48
Old Claims	2,000 00	330 37	1,669 63
Overseers of the Poor . . .	141,400 00	31,651 72	109,748 28
Park Department	[5] 2,159 92	581 25	1,578 67
Paving, etc.	850,000 00	450,802 36	399,197 64
Play grounds	[6] 2,000 00	320 00	1,680 00
Police	841,300 00	418,760 40	422,539 60
Primary School-house, City Point .	[7] 15,000 00	. . . .	15,000 00
Primary School-house, Sherwin District	40,000 00	2,107 79	37,892 21
Printing and Stationery . . .	27,000 00	11,982 20	15,017 80
Prison Point Bridge . . .	[8] 2,629 03	2,256 05	372 98
Public Baths	25,000 00	13,369 61	11,630 39
Public Buildings	83,850 00	43,045 91	40,804 09
Public Institutions, viz.:			
House of Industry . . .	184,950 00	81,466 61	103,483 39
House of Correction . . .	91,150 00	44,961 27	46,188 73
Lunatic Hospital . . .	59,720 00	23,811 18	35,908 82
Pauper Expenses . . .	80,600 00	28,964 93	51,635 07
Steamboat "J. Putnam Bradlee"	18,170 00	4,351 57	13,818 43
Office Expenses	7,350 00	1,379 12	5,970 88
Marcella Street Home . .	25,000 00	11,094 27	13,905 73
Almshouse, Austin Farm . .	18,000 00	5,468 36	12,531 64
Almshouse, Charlestown District	9,000 00	3,509 40	5,490 60
Addition to building, Rainsford Island	16,000 00	3,533 56	12,466 44
New Piggery, Deer Island . .	8,500 00	6,539 44	1,960 56
Public Lands	6,000 00	1,608 87	4,391 13
Public Library	[9] 120,626 00	60,448 01	60,177 99
Quarantine Department . . .	14,400 00	7,920 33	6,479 67
Registration of Voters and Election Expenses	22,200 00	6,830 49	15,369 51
Reserved Fund	[10] 259,000 00	. . . .	259,000 00
Salaries	31,950 00	15,799 00	16,151 00
Schools and School-houses, viz.:			
School Instructors . . .	1,115,520 00	575,277 91	540,242 09
School Expenses, School Com. .	245,000 00	146,067 18	98,932 82
Salaries Officers, School Com. .	51,000 00	28,971 90	22,028 10
School-houses, Public Buildings .	133,000 00	69,962 36	63,037 64
Carried forward . . .	$12,505,880 89	$5,251,829 91	$7,863,786 79

[1] Brought from last year, $19,000 00
[2] Brought from last year, 860 67
[3] Brought from last year, 100,628 21
[4] Brought from last year, 532 27
Transferred from Reserved Fund, 20,000 00
[5] Brought from last year, 2,159 92
[6] Transferred from the Reserved Fund, 2,000 00
[7] Brought from last year, 15,000 00
[8] Brought from last year, 2,629 03
[9] Brought from last year, $500 00
[10] Transferred to Branch Library West Roxbury District, 10,000 00
Com. Council Chamber ventilation, 3,000 00
Inspection of Buildings, 4,600 00
Northampton-st. Dist., 20,000 00
Play grounds, 2,000 00
Sealer of W'ts & Meas., 1,400 00

OBJECT OF APPROPRIATIONS.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward . . .	$12,505,880 89	$5,251,829 91	$7,863,786 79
Sealer of Weights and Measures .	[1]5,100 00	2,454 84	2,645 16
Sewers	150,000 00	86,624 05	63,375 95
Sinking Fund Commissioners .	800 00	375 00	425 00
Small-pox Hospital . . .	[2]29,243 64	16,382 92	12,860 72
Soldiers' Relief:	[3]153,131 98	33,676 50	119,455 48
Suffolk Street District . . .	[4]2,164 03	150 09	2,013 94
Surveyor's Department . . .	36,176 00	17,349 64	18,826 36
Swett Street	[5]56,513 78	17,702 05	38,811 73
Tax and other Fees: Revenue received, $19,040 55	. . . .	230 29	18,810 26
Treasurer's Department . .	21,700 00	10,761 67	10,938 33
Washington Street Extension .	[6]30,863 90	. . . .	30,863 90
Water Works, West Roxbury and Brighton Districts	[7]25,403 78	25,403 78	. . . .
West Boston and other Bridges .	[8]8,000 00	3,441 91	4,558 09
Widening Shawmut Avenue . .	[9]3,669 53	. . . .	3,669 53
Widening Streets	125,000 00	44,032 44	80,967 56
Total Appropriations, $10,267,258 00		$5,510,415 09	$8,272,008 80
Balances from 1876–77, 2,886,389 53		Less prov. for,	24,969 18
	$13,153,647 53		
Revenue	603,807 18		$8,247,039 62
	$13,757,454 71		

[1] Transferred from the Reserved Fund, $1,400 00
[2] Brought from last year, 29,243 64
[3] Brought from last year, 153,131 98
[4] Brought from last year, 2.164 03
[5] Brought from last year, 56,513 78
[6] Brought from last year, $30,863 90
[7] Brought from last year, 25,403 78
[8] Brought from last year, 1,500 00
[9] Brought from last year, 3,669 53

UNCOMPLETED PUBLIC BUILDINGS AND PUBLIC WORKS, MAY 1, 1877.

TOTAL APPROPRIATIONS AND EXPENDITURES FOR EACH.

The following table shows the total amount of appropriations made from time to time by the City Council, and the objects for which they were made, — the amount expended, and balance unexpended, including the October draft.

OBJECT OF APPROPRIATIONS.	Loan, Revenue, or from Transfers.	Expended.	Unexpended.
Additional Supply of Water (transfer, loans and premium on loans)	$4,462,886 80	$3,696,753 27	$766,133 53
Back Bay streets and avenues (loan and transfers)	462,000 00	461,262 25	737 75
Beach Street (loan and transfer)	253,969 96	253,375 96	594 00
Broadway Extension (loan)	1,000,000 00	919,319 79	80,680 21
Burnt District (loans)	6,671,176 65	6,319,265 73	351,910 92
Chelsea Bridge (appropriation)	158,000 00	24,575 55	133,424 45
Eastern Avenue and Bridge (loan)	200,000 00	186,430 21	13,569 79
Francis Street School-house (appropriation)	20,000 00	16,090 28	3,909 72
Grammar School-house, Brighton District (appro'tion)	46,000 00	25 75	45,974 25
Grammar School-house, Dorchester-Everett District (appropriation)	43,000 00	42,863 45	136 55
Grammar School-house, Egleston Square (appro'tion)	23,500 00	14,852 50	8,647 50
Grammar School-house, Washington Village (appro.)	115,000 00	54,259 81	60,740 19
Home for Poor, Deer Island (appropriation)	150,000 00	2,500 00	147,500 00
Memorial Monument, Boston Common (transfer)	75,000 00	33,300 00	41,700 00
Mystic Sewer (loan)	205,000 00	11,885 16	193,114 84
New Engine Houses (appropriation)	23,000 00	22,707 70	292 30
New Lunatic Hospital (loan and appropriation)	148,000 00	47,371 79	100,628 21
Northampton Street District (loan and transfers)	262,000 00	256,715 52	5,284 48
Suffolk Street District (loans and transfers)	2,428,248 96	2,426,235 02	2,013 94
Swett Street (loan)	376,000 00	337,188 27	38,811 73
Washington Street Extension (loans)	1,670,000 00	1,639,136 10	30,863 90
Water Works, West Roxbury and Brighton Districts (loans and premium on loans)	480,570 00	480,570 00	
Widening Shawmut Avenue (transfer)	77,000 00	73,330 47	3,669 53
	$19,350,352 37	$17,320,014 58	$2,030,337 79

CITY OF BOSTON.

City Document No. 82.

REPORT ON BLACKSTONE-SQUARE ACCIDENT.

In Board of Aldermen, October 8, 1877.

The Joint Special Committee appointed to investigate the cause of the accident on Blackstone square, on the 17th of September, and also what person or persons are responsible for the same, having considered the subject, beg leave to submit the following report: —

The committee gave a public hearing, and heard the testimony of a number of persons, relative to the construction of the stands, etc. A stenographic report of the testimony taken at the hearing will be found in the Appendix.

From the evidence presented, the committee believe the following to be a correct statement of the facts: —

The committee appointed to make arrangements for the dedication of the Army and Navy Monument, having in view the erection of spectators' stands upon Franklin and Blackstone squares, were waited upon by Mr. Joseph F. Paul, who, at a meeting of the committee, held on the 6th of September, offered to erect a spectators' stand on each of the above-named squares for the sum of $300. (Evidence, pp. 9, 10, 16, 18, 20, 21, 37.)

Subsequently, at the same meeting, the committee, relying upon Mr. Paul's good reputation as a mechanic, voted to employ him to erect the stands at the price named. (Evidence, p. 9.)

The clerk was directed to notify Mr. Paul that his offer was accepted, but deferred sending a notice until the next day. On entering the City Hall, on the morning following,

the clerk met Mr. Paul, and was informed by him that he had already been notified. (Evidence, pp. 12, 38.)

There being a great demand for seats on the stands, Mr. Flynn, who was on the sub-committee to whom the subject of spectators' stands had been referred, accompanied by the Clerk of Committees, went to Blackstone square, on the 13th of September, for the purpose of seeing Mr. Paul in relation to enlarging the stands. They found workmen engaged in erecting the stands, and, on inquiring for Mr. Paul, were told that he had been there a short time before, but had gone away. (Evidence, pp. 13, 15.)

The object of their errand was stated to a person who appeared to be the foreman, but whom it now seems was Mr. Warren Hayford, and he was asked if he could get Mr. Paul. He replied that he could, and was told to take the carriage and bring him to the place. (Evidence, pp. 13, 15, 47.)

In a short time Mr. Hayford returned with Mr. Paul. Mr. Flynn stated the object of the visit, and Mr. Paul explained the manner in which the stands could be enlarged, and gave the price for which he could make the alteration. He also gave a price for some additional work to be done at the south burying-ground. (Evidence, pp. 13, 15, 16, 39.)

At a meeting of the committee, later in the afternoon, Mr. Flynn reported the result of his interview with Mr. Paul, and a telegram was sent to that gentleman, requesting him to do the work. (Evidence, pp. 13, 15, 16, 39.)

Throughout the whole transaction the committee negotiated with no one except Mr. Paul, and relied solely upon him.

On the 15th of September the Inspector of Buildings detailed Assistant Inspectors Frye and Sweat to examine the spectators' stands which had been or were to be erected along the route of the procession south of Dover street. They were instructed to see that all such stands were constructed in a thoroughly safe manner, and were authorized to forbid the use and occupancy of any that might be, in

their opinion, in any way unsafe and dangerous. (Evidence, p. 54.)

On the same day Mr. Frye reported that the stands on Franklin and Blackstone squares were all right, with the exception of some cleats which he required to be nailed on the back posts, under the stringers, and which Mr. Paul promised to have done. (Evidence, p. 54.)

On Sunday afternoon, September 16th, Mr. John W. Fraser informed the Chief of Police that he had reasons for believing that the stands on Franklin and Blackstone squares were unsafe. (Evidence, pp. 27, 33.)

The Chief of Police notified Alderman Wilder and the Inspector of Buildings that he had been so informed. These notices were delivered Sunday evening. (Evidence, pp. 11, 33, 56.)

Upon receipt of the notice the Inspector ordered Assistant Inspectors Frye and Emery to examine the stands the next morning (Sept. 17th). On the same morning he himself started to examine a stand at the South End which had been reported unsafe, hoping to meet his Inspectors, but with no intention of stopping at the squares, as his time was limited. On his way he *did* meet Messrs. Frye and Emery, who reported to him that the stands were perfectly safe. (Evidence, pp. 56, 57, 58, 59, 60.)

Mr. Shaw, after receiving this report of his assistants, drove to the squares, got out of his buggy and looked at the stands, and then drove on to examine the stand to which his attention had been previously called. (Evidence, pp. 62, 63.)

Alderman Wilder, on arriving at City Hall on the morning of the 17th, inquired at the office of the Inspector of Buildings, and was told there were no reports of inspection of stands, excepting of the one on the Common. (Evidence, pp. 11, 12.)

On the 18th of September Alderman Wilder requested Messrs. N. J. Bradlee, Nathaniel Adams, and B. D. Whit-

comb, to examine the stands and report their opinion regarding their construction and the cause of the accident. These gentlemen reported that, in their opinion, the accident was caused by the unworkmanlike manner in which the stands were constructed. (Evidence, pp. 22, 23.)

The opinions of these gentlemen were sustained at the hearing by the testimony of Messrs. George Nowell and A. S. Ripley, both practical builders. (Evidence, pp. 28, 31.)

It was also in evidence that the stand on Blackstone square fell when the seats were only about half or two-thirds full. (Evidence, p. 31.)

The committee are satisfied that the accident was caused by the unworkmanlike manner in which the stands were constructed.

Mr. Paul claims that throughout the whole transaction he only acted as the friend of Mr. Hayford, who was in reality the builder of the seats. He admits, however, that the committee probably believed him to be the contractor. (Evidence, pp. 39, 40, 41.)

Mr. Hayford testified that he did not know whether he or Mr. Paul was the contractor. (Evidence, p. 47.)

Mr. Paul designed the seats, made the price, furnished the lumber, and in all things acted as the principal throughout the whole transaction. The committee knew only him, and Mr. Paul must, therefore, be held responsible for the defects in the construction of the stands.

The Inspector of Buildings claims that he was misled by his assistants, who reported the stands to be safe, and that he had such confidence in their ability that he deemed it unnecessary to make a personal examination. (Evidence, pp. 61, 62.)

He claims that when he stopped at the stands, on the morning of September 17, he did not *inspect* them, but merely took a hasty glance at the additional seat, which attracted his attention when driving by. (Evidence, p. 63.)

He also claims that under the building law he was author-

ized to delegate his authority to his Assistant Inspectors, and that having done so, he has fully complied with the law. The opinion of the City Solicitor to that effect is submitted. (Evidence, p. 70.)

Sections 11 and 12 of chapter 298, Acts of 1873, provide that whenever any building, *staging*, or other *structure*, shall from any cause be reported dangerous or unsafe, it shall be the duty of the Inspector of Buildings to inspect the same, and, if in his opinion it is dangerous, he shall notify the owner, agent, or other party having interest therein, to cause the same to be made safe or removed. And, in cases where the public safety requires immediate action, the Inspector is authorized to enter the premises with such assistants as may be necessary, and cause the unsafe structure to be made safe or taken down without delay.

The Inspector could delegate his assistants to perform this duty, and, under the circumstances, would have been justified in accepting their reports as final, especially as he was pressed for time in attending to other duties, which, at the moment, appeared to be of greater importance; but, having gone in person to a structure which had been reported as unsafe, the committee are of the opinion that it was his duty, notwithstanding the reports of his assistants, to inspect the same.

The Assistant Inspectors frankly admitted that it was an oversight on their part in not requiring proper braces to be put upon the stands, and do not attempt to give any explanation. (Evidence, pp. 66, 68.)

It was in evidence that Assistant Inspector Sweat did not examine the stands subsequent to 4 o'clock on the Saturday preceding the accident, at which time the stands were unfinished.

The committee arrive at the following conclusions: —

First. That the accident was caused by the unworkmanlike manner in which the seats were constructed.

Second. That Mr. Joseph F. Paul, as the builder of the stands, is responsible for their defective construction.

Third. That the Inspector of Buildings, who visited the stands on the morning of September 17th, and the Assistant Inspectors who inspected them, did not use sufficient care in a matter of so much importance to the public safety.

For the Committee.

JOHN E. FITZGERALD,
Chairman.

APPENDIX.

THE PUBLIC HEARING.

APPENDIX.

THE PUBLIC HEARING.

TUESDAY, Oct. 2, 1877.

The committee met in the Common Council Chamber, at 3½ o'clock, P. M.

Present. — Aldermen Fitzgerald (Chairman), O'Brien, Breck; Councilmen Felt, J. B. Richardson, Wolcott, Thorndike, Jackson.

The CHAIRMAN read the order appointing the committee, and said: —

The object of the committee is to ascertain who was responsible for this disaster, and the Chair, in accordance with the wishes of the committee, will first ask the Clerk of Committees to read the minutes of the Committee on the Army and Navy Monument.

RECORDS RELATING TO THE ERECTION OF THE STANDS.

Mr. LEE (Clerk of Committees). — The vote of the committee to erect the stands, I suppose you mean. On the 6th of September a vote was passed —

> To employ J. F. Paul to erect two spectators' stands on Franklin and Blackstone squares, at a cost not exceeding $300.

Q. (By the CHAIRMAN.) Was there any committee appointed?

A. There had previously been a sub-committee.

Q. Who were the sub-committee in that case, if you remember without reference to the minutes?

A. The sub-committee consisted of Alderman Wilder, and Messrs. Hiscock, Nugent, and Flynn.

Q. On stands?

A. On stands? Yes, sir. At the meeting of August 31st, I find a vote passed, —

> That the subject of erecting a stand for the accommodation of the members of the City Council be referred to the Committee on Decorations, etc.

That committee consisted of Alderman Wilder, and Messrs. Hiscock, Flynn, and Nugent.

The committee voted to swear the witnesses.

Alderman Charles W. Wilder. — *Sworn.*

The Chairman. — The committee want to hear your testimony as to any conversation you had with Mr. Paul. The minutes of your committee state that the contract for building the stages and platforms on Blackstone and Franklin squares was given to Mr. Paul, and that you and three other gentlemen, composing the sub-committee on decorations, were charged with that part of the business; and the members of this committee would like to hear what your testimony is as to any conversation which you had with regard to this contract with Mr. Paul.

Alderman Wilder. — Mr. Chairman: If you please, I will state my recollection of what occurred in relation to the construction of the stands; if it should vary from the minutes of Mr. Lee, in the committee, why, then I should desire to correct it; because, perhaps, I might make some error. The matter of erecting stands was discussed in the committee. I was a member of the committee who conferred with a gentleman who brought in an estimate to construct stands. It was so expensive that the committee at once abandoned the idea and decided not to consider it. Two days later Mr. Paul called in the Committee Room and addressed his conversation to me, having in his hand a sketch of what would be his idea of the form for the construction of the seats. The first word I said to Mr. Paul was, that the committee had considered this matter of seats, and it cost so much that they have abandoned it. He says: "Seats constructed upon that plan will cost $300." Said I: "How many will they seat?" — "1,284 persons," stating that he had the dimensions correctly. "Well," I said, "that is somewhat different; perhaps they will consider it again." I called the attention of the other members of the committee, and stated Mr. Paul's price.

Some gentlemen of the committee suggested — By the way, we had employed Mr. Marston to build the stand on the Common; and I said, "Why not let Marston figure upon this?" I stepped outside of the Committee Room, knowing Mr. Marston was in waiting, showed him the sketch, gave him the number of feet and the distance, and explained rapidly the idea of Mr. Paul in constructing it. "Well," Marston says, "that is the proper way to put up seats there." I said, "What will it cost to do it?" He made his own figuring, and figuring on the quantities of lumber, in a few minutes said: "I should want $375." Said I, "Mr. Paul don't want but $300." Said he, "I will do it for $300." Said I, "It wouldn't be quite fair; $300 is cheap enough, isn't it?" — "Yes." — "And Mr. Paul being the first party to offer it at this price, it seems to me right and proper that he should have it." Marston said, "I find no fault with that." I went back into the Committee Room after this conversation, and meantime Mr. Paul had retired from the Committee Room, and I think he was not present when I came back. I called the attention of the committee to Mr. Paul's sketch, and stated his price. The committee thought it was best to erect the seats, they would accommodate so many people, when they found the expense would not

exceed $300. I suggested to the committee, that if they were going to be erected at all, I was glad they were going to be placed in the hands of Mr. Paul, because I knew they would be attended to properly.

I made a motion that the proposition of Mr. Paul be accepted, and it was accepted by a unanimous vote; and I turned around to Mr. Lee and told him to notify Mr. Paul that his proposition to build the seats was accepted; and that, I believe, is my entire connection with the history of the transaction, so far as I had anything personally to do with it.

Q. Had you any talk with Mr. Paul after that, Alderman?

A. No, sir; I didn't see him afterwards. That is, I wouldn't say positively.

Q. Was Mr. Lee requested to notify Mr. Paul that his proposition was accepted?

A. As I just stated, yes, sir. I think that is my entire personal connection with the platforms.

Q. Did you see Mr. Paul around the platforms?

A. I did not. I never saw the platforms from the time of their erection until the day of the celebration. I was not on the ground, and knew nothing more about it.

I might add here, that the pressure for seats was so great, that it was afterwards, — this sketch was to make them three seats high, and did not include a fourth seat, — while I was absent out of town, a further arrangement was made to add another seat, which I didn't know anything about, and didn't know had been added until the day of the celebration.

Q. (By Mr. FELT.) This last arrangement of seats was on the top; do you know that?

A. I don't know anything about that. I was only presented with a few additional tickets the next day after I got back, with which I could gratify a few more friends, and was then told the arrangement had been made to make more seats. I might state a further connection. Sunday evening I received at my house in Brookline, where I was living at the time, a notice from the Chief of Police. I cannot exactly give the wording of it, but it either stated or intimated that somebody had questioned the safety of those seats, and inquired of me what I had to say about it, or if I had any knowledge about it. I presume that that note was sent to me from the fact that I am a member of the Committee on Survey and Inspection of Buildings. I did not receive it until Sunday evening.

Q. (By the CHAIRMAN.) What was the substance of it?

A. The substance of it was that somebody had questioned the safety of those seats, or intimated to me that somebody should look after their safety.

Q. That they needed looking after?

A. I regarded the note as having reference to the office of Inspector of Buildings, as you will see that it had from my connection with that committee. This was Sunday evening. I came in early on Monday morning, a little before nine o'clock. I found the clerk in the office of the Inspector of Buildings had a key, and

I requested him to give me any information that there might be in relation to the inspection of the stands. He returned to me in a few moments, and said there were no reports in the office that he could find, — this was later than nine o'clock on Monday, — except upon the stands upon the Common; that he found a report that the stand on the Common was reported upon as defective, and that the defects had been remedied, and that it was all right. I went into the office of the Chief of Police with the note from the Chief in my hand, and I found Capt. Quinn, and stated to him what I have said to you, — that I could find no reports from any access that I could get to the office, except as I have stated, and that the stand on the Common was defective; but the defect had been remedied, and added, to which he assented, that as Mr. Paul constructed the others, I thought it very safe to call the others all right. Capt. Quinn thoroughly agreed with me, and I immediately left. That I believe is my entire connection, and all the present knowledge I have of the entire matter.

Q. Do you know whether the Inspector of Buildings was notified of the facts which came to your knowledge through the Chief of Police?

A. I know that I was informed from the police office that the same, or about the same, notice that was sent to me at Brookline was sent to the Inspector of Buildings some time on Sunday. I don't know that of my own personal knowledge, but was so informed.

William H. Lee. — *Recalled.*

Q. (By the Chairman.) You had some conversation with Mr. Paul, and informed him of the result of the committee's action?

A. No, sir, I did not. The committee passed a vote that afternoon to notify Mr. Paul that his proposition had been accepted; but the committee did not adjourn until quite late, and I had a number of letters to write, and it got to be time for my last train home; consequently I put off notifying Mr. Paul until the next morning. As I was coming in the next morning I met Mr. Paul coming downstairs, and he said he had been in my office to get his pocket-book, or some book that he had left there the day before when he had been in. I will not attempt to repeat the exact words, but it was something like this: that I should have notified him that the contract for building the stands had been awarded to him; and he said he had already heard of it.

Q. Did he state who told him?

A. No, sir; but he said he had heard of it, and consequently I did not send him any notice.

Q. Was there no official notice to Mr. Paul of his having received the award of the contract?

A. Not from me.

Q. Was there any notice given him?

A. That is all the conversation I had with him.

Q. Will you state all the conversation you had with him in regard to building the stands?

A. There was great pressure for tickets. The committee had distributed all the tickets they had for those stands, and there was still a great demand for them. On the 13th of September, about two o'clock in the afternoon, Mr. Flynn and myself went up to the stands for the purpose of seeing whether any addition could be made, or whether they could be enlarged at all.

Q. You and Mr. Flynn went up there?

A. Yes, sir.

Q. When was that;

A. On the 13th of September. That was on Thursday. We went up there, and a number of men were at work. Nobody was at the one upon the Franklin-square stand, but three or four were at work on the Blackstone-square stand. We spoke to one of them, who seemed to be the foreman, and asked where Mr. Paul was. He said that Mr. Paul had been there a short time before, and had gone away. Mr. Flynn said he wanted to see Mr. Paul about making some enlargement of the stands, and asked the man if he could get him; and the man said he could. So Mr. Flynn asked him to get into the carriage and bring him there. After waiting some little time for the man to go to Mr. Paul's place of business, he came back with Mr. Paul. Mr. Flynn asked Mr. Paul if the stands could be enlarged to accommodate a few more spectators; and he said they could, and pointed out the way in which they proposed to do it. I am not sufficiently a mechanic to repeat what he said he would do, but he proposed to do it in a way that would strengthen the stands, by putting on another row of seats, and gave his price for doing it, and also the price for putting some stands on the south burying-ground, while there. He gave his price at $135 to add one row, and $234 to add two rows, and 30 cents for the running foot for the little platform on the burying-ground, where there were to be chairs. Mr. Flynn told him he thought that it oughtn't to cost more than $200 to do the whole thing. Mr. Paul did not say whether he would do it for $200 or not.

Q. (By Mr. FELT.) Was that for one range?

A. Yes, sir; for one range. When Mr. Flynn came back he reported to a meeting of the committee, at which all were present except Alderman Wilder. [Reading from the records of the committee.]

"Mr. Flynn stated that he had made inquiries in relation to enlarging the stands on Blackstone and Franklin squares, and that Mr. Paul had notified him that the alterations could be made, and that it would cost $135 to add one row of seats, and $234 to add two rows. Mr. Flynn also recommended that arrangements be made at once for chairs on the wall of the south burying-ground. Mr. Paul had offered to build such a platform as was required for 30 cents per foot, or about $90. Mr. Flynn thought Mr. Paul would alter the seats on the squares and build platforms on the burying-ground for $200. The clerk stated that he had seen the Board of Health, who had given permission for the use of the burying-ground. It was voted to employ Mr. Paul to build two additions of seats on the stands on Blackstone and Franklin squares,

and a platform on the south burying-ground, for $200, and that the clerk be directed to notify him by telegraph."

In accordance with that vote I immediately telegraphed to Mr. Paul, telling him to add one or more seats to the stands, and prepare for seats at the burying-ground, for $200, and asked him to answer. I didn't receive any answer.

Q. Was the work done?

A. The work was done.

Q. Was that all the conversation you had with Mr. Paul?

A. Yes, sir; all I had in connection with the stands. On Friday I saw Mr. Paul; I had to see about some chairs which the committee instructed me to get for the burying-ground; and I went up there to ascertain how many chairs would be required. Mr. Paul wasn't at either Blackstone square or the burying-ground, but they told me I would find him up at the stand near the Central Club House; and I drove up there. He told me to speak to a man at the burying-ground, and I went up there and got the measurement of the length of the wall.

Q. Is that all you know in connection with the building of these stands?

A. Yes, sir; that is all.

JAMES J. FLYNN. — *Sworn.*

Q. (By the CHAIRMAN.) Will you please state your connection with the building of the platforms, and any conversation which you may have had with any person whom the committee authorized to build the platforms?

A. I have heard the testimony of Mr. Lee, and it is substantially as related by him, and I don't know that I can add another word to it.

Q. You mean the conversation that took place?

A. Yes, sir, substantially the same.

Q. Between you and Mr. Paul, is it substantially that related by Mr. Lee?

A. Yes, sir.

Q. Is there anything in addition that you wish to add concerning your talk with Mr. Paul?

A. No, sir, nothing.

Q. Did you visit the place at any other time and converse with him when nobody was around there?

A. No, sir, I did not.

Q. Or had any conversation with him in City Hall at any time when Mr. Lee was not present?

A. No, sir, I didn't.

Q. Do you know anything about the notification sent by the Chief of Police as to the unsafety of the platforms?

A. Only what the Chief told me, that he had sent a notification to the Inspector of Buildings.

Q. Had you any talk, or any member of your committee, to your knowledge, with any other persons than Mr. Paul as to the

manner in which that should be built, or, in fact, in relation to the building of that platform? Do you know of anybody?

A. No, sir. When Mr. Paul first brought in his plan for the seats I was not present at the committee meeting. I was not there. But I was there when the contract was awarded to him. Mr. Marston was present.

Q. Was it you who notified Mr. Paul that he had received the contract? Mr. Lee said Mr. Paul told him that he had already known of his receiving the contract.

A. I had no conversation with Mr. Paul at all, only that for building that additional seat.

Q. Then your conversation was substantially as that given by Mr. Lee?

A. Yes, sir, exactly.

Q. (By Mr. FELT.) Did Mr. Paul tell you that that additional row of seats would be likely to strengthen the structure?

A. Yes, sir.

Q. (By Mr. RICHARDSON.) Were you informed that he had sub-let it, or under-let it?

A. No, sir. In fact I didn't know anybody in the contract but him. When I went there with Mr. Lee, I found a gentleman there in his shirt-sleeves, and inquired for Mr. Paul, and he said Mr. Paul had been there a few minutes ago, and said that he was at his office, or said he thought he was. I asked him to get into the carriage and go for Mr. Paul; and he did so; and when they came back Mr. Paul figured upon the amount of lumber it would take to build those stands, and also on the burying-ground; and I asked him if he couldn't do it for $200, and I told him if he would I would recommend that that amount be paid him, and I would ask the committee to appropriate that amount of money additional; and if the committee voted we would telegraph him that afternoon, so that he might go on with the work. I came back to the committee and reported the interview with Mr. Paul, and while I was there Mr. Lee sent a telegram to Mr. Paul.

Q. And never had any conversation with him about it except what you state?

A. No, sir; never had any conversation with Mr. Paul except when he figured up the amount of lumber. I knew no one but Mr. Paul.

Q. (By the CHAIRMAN.) It included everything?

A. Yes, sir. He was to do the work for $200, and for 30 cents a running foot he was to put up the stands upon the south burying-ground.

Q. And he would take them away?

A. Yes, sir; and each of the other stands he figured at $67 apiece.

Q. (By Mr. RICHARDSON.) He furnished the lumber?

A. Yes, sir; and he would take it back after it was done.

Q. And the committee didn't interfere with the contract?

A. No, sir.

Q. Did the committee, so far as you know, give him any directions how to build it?

A. No, sir.

Q. Or furnish any plans? or whether the committee left the whole manner of making the two stands to Mr. Paul?

A. As I said before, I was not present when Mr. Paul brought in his plan for the erection of those stands. It was not until after Mr. Paul had left that I knew he had brought in a plan for those stands. Mr. Marston came in, and the question was asked what he would put up those stands for? Having seen Mr. McNutt's plan for a stand, and also Mr. Paul's, he said he would do it for $300. I then made a motion that Mr. Marston be awarded the contract; and some of the members of the committee objected to that, on the ground that Mr. Marston had already one contract on the Common, and remarked that inasmuch as Mr. Paul was the first bidder for that job he was entitled to it.

Q. My only question was whether the committee interfered with, or had anything to say about, the particular manner of construction?

A. No, sir; not so far as I am aware.

Q. Whether they said you must put so many braces this way, or that way, or anything of that kind? and whether it was left to him?

A. It was particularly and entirely in relation to the extra seat, because he suggested to Mr. Lee and myself that it would make the stands so much stronger, and he would be glad if it was done, because he could brace it much better than it was at the time those seats were erected. He went on and described how it could be done.

Q. Was there anything said that would lead you to think it wasn't properly braced then?

A. No, sir. Not being a mechanic, I didn't know much about it.

Q. (By Mr. FELT.) Was there anything said in regard to the matter of safety, in making the contract? Or did you go upon the presumption that he wouldn't build anything but what was safe?

A. No, sir. I went upon his reputation as a mechanic; and if I had anything to build, he would be one of the first men I should go to.

Q. And the committee felt the same with reference to making the contract?

A. Yes, sir.

WM. H. LEE. — *Recalled.*

The CHAIRMAN. — The Chair has here a copy of the telegram sent to Mr. Paul: —

J. F. PAUL, — Put another row of seats in each square, and prepare for two rows of settees at the south burying-ground, for $200. Answer.

WM. H. LEE.

That you say is a copy of the telegram?

A. Yes, sir. I used the word settees because it was intended to put up settees; but I found on inquiry that I could not get settees, and was obliged to substitute chairs.

J. J. FLYNN. — *Resumed.*

Q. (By Mr. GEO. A. SHAW.) Are you a member of the Committee on the Monument?

A. I was.

Q. Did you consider that the bargain made with him by that committee was to erect competent seats?

A. Yes, sir.

Q. You gave him that order, with that understanding?

A. There is no doubt about that.

Q. And he accepted?

A. Yes, sir.

Q. And went on with the work, and did erect the stands?

A. Yes, sir.

Q. Did the committee dictate in any manner the way in which he should erect them?

A. No, sir; not as I know of. I know I did not.

Q. You relied, according to your testimony, chiefly upon his character and capacity as a builder?

A. Yes, sir, as a builder.

Q. He was to be paid so much?

A. Yes, sir.

Q. A second contract was made with him?

A. Yes.

Q. And he accepted it?

A. Yes.

Q. In direct terms?

A. I only know the work was done as agreed upon by the committee.

Q. You know it was done under his direction?

A. I don't think anybody else would attempt it.

Q. Did anybody else attempt it?

A. I don't know; I don't suppose anybody would.

Q. Did Mr. Paul ever decline to do it?

A. I never had any conversation with Mr. Paul from that day to this.

Q. And you considered he did the work, and was paid for it?

A. He hasn't been paid for it.

Q. He hasn't been?

A. It is a question whether he will ever be or not.

THE ORIGINAL ORDER,

constituting the Monument Committee, was read by the chairman as follows: —

Ordered: That the Committee on Army and Navy Monument be authorized to make suitable arrangements for dedicating the Army and Navy Monument on Boston Common, on the 17th of September next, at an expense not exceeding twenty-two thousand five hundred dollars; to be charged to the appropriation for Incidentals. Passed in Common Council. *Yeas* 43, *Nays* 17. Came up for concurrence. Read and concurred. *Yeas:* Aldermen Breck, Burnham, Clark, Dunbar, Fitzgerald, Gibson, O'Brien, Robinson, Slade, Thompson, Viles, Wilder, — 12. Approved by the Mayor, July 5, 1877.

LOWELL B. HISCOCK. — *Sworn.*

Q. (By the CHAIRMAN.) You are a member of the Committee on Decoration?

A. I am, sir.

Q. Will you state any conversation which was had in your presence with the builder of these platforms; and state who the person was, and with whom the contract was made, so far as you know?

A. When this matter of seats was first discussed in the committee, I went one afternoon and called upon Mr. McNutt, asking him to bring a plan the next morning to City Hall, and his price for furnishing seats on Blackstone and Franklin squares. Mr. McNutt appeared the next day before the committee with his plan, and his price, if I mistake not, was $750. The clerk will correct me if I am not right. The committee immediately abandoned the scheme, thinking it would cost too much. After that Mr. Paul appeared.

Q. Was it at another meeting?

A. Yes, sir, at another meeting.

Q. Was Mr. Paul invited to come?

A. I cannot say as regards that.

Q. Was there any member of the committee who invited him — he came with his plan?

A. Yes, sir, he came with his plan.

Q. Tell what he said.

A. Well, sir, as to what he stated, my testimony would be substantially what the clerk said, that he would build that platform for $300.

Q. Did he present a plan?

A. Yes, sir.

Q. And said he would build it for $300?

A. Yes, sir.

Q. And the committee awarded the contract to Mr. Paul?

A. To Mr. Paul.

Q. Is there any other conversation you remember, or that took place at the meeting of the committee in relation to doing this?

A. I had no conversation with Mr. Paul, personally, myself.

Q. Did you see him around the place?

A. No, sir; I did not go to the square.

Q. Did you see him at any time while it was in process of erection?

A. I did not.

Q. That is all you know about it?

A. Yes, sir.

Q. Do you know anything about the subsequent action in regard to the addition?

A. Yes, sir. I would state that it is substantially the same as has been given.

Q. You had better state all you remember.

A. In regard to the additional seats, there was such a pressure for more seats, that it was discussed in committee, and we thought

we had better erect more; and Mr. Flynn afterwards reported that there might be an additional seat.

Q. And was the contract given to Mr. Paul to build an additional seat?

A. Yes, sir; given to Mr. Paul to build an additional seat.

Q. You were at the meeting of the committee when the additional contract was given?

A. I was.

Q. And it was given to Mr. Paul?

A. Yes, sir. And the clerk was instructed to inform him by telegraph.

Q. Do you know of any member of the committee being notified of the unsafety of this platform?

A. I do not.

Q. (By Mr. WOLCOTT.) Was anything said in your hearing by Mr. Paul, or any member of the committee to Mr. Paul, as to the plan being a proper one?

A. Nothing at all.

Q. But the number of seats was mentioned?

A. Yes, sir. As to the plan we trusted entirely to Mr. Paul.

Q. (By the CHAIRMAN.) Was there any discussion as to Mr. Paul's ability?

A. Nothing at all.

Q. Did you consider that he was a reliable person?

A. Yes, sir.

Q. (By Mr. RICHARDSON.) What became of the little plan he had?

A. I don't know, sir.

Q. How large was it?

A. About as large as that [holding his hands about two feet apart]. It was done up in brown paper.

Q. Do you know whether the committee had anything to do about the manner of construction, and dictated it?

A. I do not; and I don't think any member of the committee did. I did not, for my part.

Q. (By Mr. WOLCOTT.) Do you know whether the number of tickets printed and distributed corresponded exactly with the number for which the plan was made?

A. I do not; but I think we tried to keep within the limit of the number of seats.

JAMES H. NUGENT. — *Sworn.*

Q. (By the CHAIRMAN.) Were you one of the Committee on Decoration?

A. Yes, sir.

Q. You have heard the testimony of the other members of the committee?

A. Yes, sir.

Q. Have you anything in addition to their testimony to give to the committee?

A. No, sir.

Q. Were you present at any conversation had with Mr. Paul about putting up this platform?

A. No, sir.

Q. You were not —

A. I was at the committee when they awarded the contract.

Q. You were there?

A. Yes, sir.

Q. And you saw Mr. Paul there?

A. Yes, sir.

Q. And you saw him when he showed this sketch or plan?

A. Yes, sir.

Q. Were there any special instructions given to Mr. Paul outside of the plan which he presented?

A. No, sir.

Q. He presented a plan and told the amount of money for which he would construct the platform in accordance with that plan?

A. Yes, sir.

Q. And the committee gave him the contract?

A. Yes, sir.

Q. Were you in the committee when that was given?

A. Yes, sir.

Q. Were you in the committee when he received the additional contract for $200 to make those additional seats?

A. I could not say for certain. I don't know whether I was.

Q. Were you ever around the place while Mr. Paul was up there? Did you ever see him around there?

A. I believe I did see him there.

Q. At work, superintending it?

A. I don't know whether he was at work or not.

Q. Had you any conversation with him at all?

A. No, sir, I think not.

Q. Were you ever notified, as a member of the committee, of that place being unsafe?

A. No, sir.

Q. Did you know anybody else in this work than Mr. Paul? Was it the understanding in committee that Mr. Paul was making this contract for anybody else?

A. No, sir.

Q. It was not?

A. No, sir.

ALDERMAN FRANCIS THOMPSON. — *Sworn.*

Q. (By the CHAIRMAN.) Will you please state all you know about the erection of the stand?

A. I would state that the pressure upon the committee for stands or accommodations to see the procession by outside parties was very strong, and it was one of the last matters that the committee considered. I think they did not consider it seriously until the afternoon the Chief Marshal desired the committee to go over the route of the procession and decide whether they would extend

it a short distance into Roxbury, or whether they would return down Washington street into Chester square; and on that afternoon, as they rode down Washington street, somebody says, "If the stands are to be erected, Blackstone and Franklin squares would be a very good place, because the ground is level, and they could be erected under the shade of the trees." The committee referred the matter to a sub-committee on decorations. On our return to City Hall, I saw the chairman of the Committee on Common and Squares. I said to him, "The committee think something of erecting stands on those squares. Can they do it?" He said there would be no objection if they desired it. The sub-committee, I think the next day or the day after, reported that Mr. McNutt would erect the stands for $700 or $750. The idea was immediately abandoned, as that was altogether too much money for that purpose, and it was not considered. I supposed that was the end of the stand business. The next day, or the day after, when I came into the room, I saw Mr. Paul. I didn't know what his business was there. After the committee came to order, Alderman Wilder stated that Mr. Paul had been to see the committee and would erect the stands for $150 apiece. I made the remark, "Sufficiently strong to accommodate so many people?" The reply was, "Oh, yes, Paul will do it right." What he said in regard to Mr. Marston was as he stated. Then the motion was made that Mr. Paul be authorized to build the stands.

Q. Did Mr. Paul present a plan?

A. I saw no plan, and I don't know that there was any plan presented. I knew nothing about it. I made the remark when the offer was made, "Sufficiently strong?" Said he, "Yes, and he will do it right." Alderman Wilder made the remark that a matter that would cost $300 might be considered when one of $700 would not, as an excuse for introducing the subject again. As the committee progressed, I inquired of somebody if the stands had been examined, and they said, "Yes, they are all right and done;" and in the evening I saw in the papers that the stands had been examined by the Inspector of Buildings, and it was so published. I gave it no further thought. I supposed it was all right.

Q. Do you remember about the additional contract?

A. Yes, sir; it was precisely —

Q. As stated by the other members of the committee?

A. Yes, sir.

Q. And it was given to Mr. Paul?

A. Nobody else was known. I never knew anybody else.

Q. And he put it up in accordance with the plan?

A. He was to erect one sufficiently strong.

Q. In accordance with the plan?

A. I didn't know anything about any plan. If there had been a plan, I shouldn't have known whether it was proper or not.

Q. Subsequently to the accident did you know anything about the appointment of anybody to investigate and examine the stands?

A. I desired the next morning to have a meeting of the committee in regard to this matter. When Alderman Wilder came he

said he thought it was a matter which belonged to his Committee on the Survey and Inspection of Buildings, and that he had taken some of the necessary steps to ascertain the cause.

Q. (By Mr. RICHARDSON.) So far as you know, that so-called inquest or inquiry into the cause of it was not done by your committee as a committee?

A. It was not done by our committee, although our committee approved of it. We desired all the information we could get in regard to it.

ALDERMAN WILDER. — *Resumed.*

Q. (By the CHAIRMAN.) I quite forgot to ask you whether, after the accident took place, you did not go farther in investigating the accident and the cause of it?

A. I requested Mr. Lee to write a note to Mr. Bradlee in my name, as I hadn't an opportunity of calling the committee together. After consulting about the matter with Capt. Flynn, he agreeing with me that something should be done at once, that the public would expect something to be done at once, and after discussing some names, we agreed upon the three names of the gentlemen that we would notify to examine the premises. We were informed that the police had been instructed to keep the stand that had not fallen down just as it was; and that no time should be lost I requested Mr. Lee, after consulting with Capt. Flynn that day, to write to the three gentlemen, who did make a report, asking them to examine the premises and report what in their opinion was the condition of the stands.

Q. Is this it? [Showing a paper.]

A. That was the note written by Mr. Lee, and read to me, to know if it was what I desired them to report. I assented to it, and it was sent. I did not see either gentleman that day; and the first knowledge I had that they had made a report was what I saw in the papers.

Q. Alderman Thompson says the committee fully endorsed what you did.

A. I reported at the next meeting of the committee what I had done, and the committee fully endorsed it, and it became the act of the committee. I was going to add that I didn't see those three gentlemen personally, and didn't have any connection with them, and didn't know that they would make any examination and report, until I received the report.

Q. This report?

A. This report.

Q. This is the result of the letter which was written?

A. This communication was handed to me a day or two afterwards.

The chairman read the following: —

BOSTON, Sept. 22, 1877.

Alderman Charles W. Wilder: —

DEAR SIR, — We herewith submit our report, in reply to the following communication: —

CITY OF BOSTON.

OFFICE OF THE CLERK OF COMMITTEES,
CITY HALL, Sept. 18, 1877.

DEAR SIR, — I am directed by Alderman Wilder to request that you, in company with Messrs. Nathaniel Adams and B. D. Whitcomb, will examine the spectators' stands on Franklin and Blackstone squares, and report to him in writing your opinion regarding their construction, and the cause of the accident which occurred yesterday.

Will you please make the necessary arrangements for meeting the above-named gentlemen at such time and place as may be most convenient, and at the earliest practicable moment?

Respectfully yours,

WM. H. LEE,
Clerk of Committees.

N. J. BRADLEE, Esq.

The undersigned, having carefully examined the platform now standing on Franklin square, and also the ruins of the one on Blackstone square, in accordance with the request contained in the above communication, report that we found the structure entirely inadequate for the purpose for which it was erected; every principle of strength being violated in its construction, and the sham manner in which the work was put together is unwarrantable in this enlightened age. There was no framing together of the various parts, its entire strength depended upon nails, and not more than one-half as many were used as should have been in such a platform. There were no braces whatever to prevent a lateral strain, which was the immediate cause of the accident; and the brace to each cross-section was located in such a position that, if the upper seats had been filled with people, there was nothing, in our opinion, to prevent the whole frame from falling backwards, these braces having been placed from the lower row of seats to the foot of the rear post, leaving the other three rows of seats to act as a lever to throw the whole frame backwards.

The arrangements for supporting the upper row of seats must, in our judgment, have been added after the frame was up, as no sane man would have laid out such a plan to start with.

An examination of the ruins of the Blackstone-square platform indicates that it was more carelessly constructed than the one now standing, a large number of the seat bearings not having been cut of the right size or shape, and were pieced and patched. We are aware that in making an examination *after* the terrible accident of the 17th inst. we are liable to be prejudiced, and might discover mistakes which would not have occurred to us if we had made the examination *previous* to the accident; but we cannot conceive how mechanics inspecting these structures with *any care* should have pronounced them safe.

Respectfully submitted,

NATHL. J. BRADLEE,
NATHL. ADAMS,
B. D. WHITCOMB,
Committee.

Q. This was the communication you received from those gentlemen?

A. That was it.

Q. I should like to ask you, Alderman, whether you had informed Mr. Paul that he had received the contract?

A. No, I was not aware of it personally.

Q. Had no conversation with him, stating that he received it?

A. I did not.

Q. Mr. Lee told him the next morning that the contract had been awarded to him, and Mr. Lee stated that Mr. Paul informed him that he had been informed so?

A. I might have met him and informed him of it; if I did, it has slipped my mind. I might have done so. It don't occur to me just now.

Nathaniel Adams. — *Sworn.*

Q. (By the Chairman.) You some time ago were requested by Alderman Wilder to inspect those stands on Franklin and Blackstone squares, in company with Mr. Bradlee and Mr. Whitcomb?

A. Yes, sir.

Q. Will you state — (To Mr. Adams.) You understand all about building, Mr. Adams, don't you?

A. I think so; I know something about building.

Q. Will you state something about the result of that investigation?

A. Well, sir, —

Q. Did you sign that, Mr. Adams? [Showing report signed by him.]

A. Yes, sir.

Q. That is your signature?

A. Yes, sir. I would like to refer to the order before I say anything. I received this order from Mr. Wilder, through the Clerk of Committees, and at once we thought it rather meagre. We met together, the three of us, and were all of that opinion, that it was rather a meagre order. Nevertheless, we determined to inspect it and give our opinion with respect to it. The next morning Mr. Bradlee was engaged, and couldn't attend to it. He wished to make a further appointment, as he had to go out of town to attend a railroad meeting, and so the next day he couldn't attend to it. During the interim there was a public intimation as to whether this committee was properly authorized and appointed, and we rather laid back upon the matter; and Mr. Bradlee came to City Hall to inquire about it, and he learned here from the Clerk of Committees that, although it emanated from Alderman Wilder, his committee endorsed it, and that the Mayor was anxious that this same committee should investigate it. From that we went up and examined it. We all met together at the time appointed, and made a careful examination of the structure that was standing, and we saw the addition. We noted particularly the construction, and we reported accordingly.

Then we went across the way to examine this, which was a mass of ruins, which, perhaps, had been thrown together somewhat. It didn't appear to lay just exactly as it fell; but we lifted it up and examined it, and found it something like the other; but it was very much patched up and "gumped up," to use a familiar expression. There were a great many pieces put together; there was a

great deal of skewering to make the parts come up to the proper height and length. From the knowledge that we got from examining the ruins, there was a great deal more of this piecing up and fitting up to make the thing come in shape than there was in the other. We noticed on the part that was standing, a substitute that was added to aid the nailing, for fear it was not strong enough; and it surprised us to think that such a thing should be had. I am speaking of a cleat to hold together the seats. It is a common thing in building staging to sometimes strengthen it in that way; but in all cases the pieces should have gone up endwise, and be 18 inches or two feet long. [Witness explained this in detail by pointing out the points on the plan.] I believe I can sincerely say that there are but two instances in that whole structure where there are but two nails.

Q. Only one nail?

A. Only one nail. I am under oath, and I say I don't know but two instances in that whole structure where there are two nails in that one thing that was put in for a substitute, and what was intended for a substitute had but one nail, the same as you would put on a button. This is in one of the stands now; and it surprised us that anybody, having any consideration at all, should have called that a substitute. If it had been put on properly, it would have added very much to the strength of the bearing.

Q. Have you anything to vary from the report you have signed?

A. Not at all.

Q. It is substantially the report of an examination of the platform?

A. Yes, sir.

Q. And it was indorsed by the other two gentlemen with you?

A. Yes, sir.

Q. Have you anything to add to that report which you wish to make a part of your testimony?

A. No, sir, I have not. I didn't come up to testify. I regret very much that I have been called upon to answer questions.

Q. Whether or not you consider the whole affair was built in an unworkmanlike manner?

A. Yes, sir, I consider it was. I might particularize a little in regard to that additional seat. That additional seat was made by lapping the slanting piece on the back. It is lapped right on to the main standard bearing. It is lapped on and nailed on with nails. There is a piece that is nailed on to the same upright, and lapped over against this, and you cannot take three pieces of the same size and nail them together in that way but what one will wrench off the other. If we bear this long one over far on the other to make that come level and straight and even, it will pry this off, and the structure shows either a gaping open at the bottom, or else it would gape open here. You cannot draw three pieces together with nails, as that is constructed with nails, for the tighter you drive them the more they will come apart.

Q. You consider that addition worse than the platform as put up before?

A. Yes, sir; it added very much to its unsafety.

Q. (By MR. RICHARDSON.) In your judgment, did it fall by reason of that additional seat?

A. No, sir. It was the want of lateral braces. This one I was speaking of as standing, swayed. I cannot say, but I think the other one was from the same cause — absence of braces.

Q. (By Mr. FELT.) In your examination did you find out whether these seats were full or not?

A. No, sir, I didn't learn about that.

Q. (By the CHAIRMAN.) If the lateral braces had been on this platform, would they have held up this addition to the original?

A. They wouldn't have done it any hurt. The swaying part here swayed over, and I presume it went the other way; and one, two or three more boards would have kept that in place, so that it would never have swayed down. It might have broken down, but no accident could have happened. Four hundred feet of ordinary inch boards would have kept the structure in its place as to swaying.

Q. Then you consider both these structures — the one standing now — built in a poor, unworkmanlike way?

A. I do, sir.

Q. And the other one somewhat worse?

A. Yes, sir. The material worked into it didn't work into it like the other one.

Q. (By Mr. RICHARDSON.) One thing in the report I don't know as I quite understand. You say if the upper seats had been filled with people, there was nothing to prevent the whole frame from falling backwards. I don't understand it.

A. I think I can make it plain. [Pointing to the plan.] The bottom of the platform was a plank wide. It wasn't intended to be sat on at all, and with the thing fully loaded they would have been reeling, and the bearing that held up that part of it was away out next to the iron fence, three feet from where any person would sit. They laid the whole of those seats, and it was all to be relieved here on this platform; and this brace coming to that point would act as a sort of lever. If that brace had gone up to the centre of that stringer it would have held the heft. It would have acted as a perpendicular bearing. Now, it is not so perpendicular as it would have been if it had gone to that point. Now, it is at the foot of the first seat, and the only lateral stay to hold it in place was that one at the top edge, and, at the point I measured it, it was just two and a half feet from the ground. The top-edge of the board was two and a half feet from the ground. The whole of the rest of it had no fastening at all. Now, our opinion is that if they had taken a board and run it right up to the top of the third section, and the bottom of this one, and *vice versa*, and so again, that they never would have swayed and come down as it did.

Q. You don't say that the putting on of the back-stays and higher seats was, in your judgment, the cause of the accident?

A. No, sir; because the one that is standing swayed; I presume that in the other one it was the absence of braces. You cannot say that there is a brace on it toward holding it up.

JOHN W. FRASER. — *Sworn.*

Q. (By the CHAIRMAN.) Will you state all you know about that platform, and those to whom you gave information concerning it?

A. My first notice of the platform was on Sunday, the 16th of September.

Q. On Sunday you went up there?

A. Yes, sir, I went the whole length of Blackstone square, and made an examination of the manner in which the platform was built. I noticed how it was put together, and came to the conclusion that it was not safe. I went to the Chief of Police, and notified him to that effect. I likewise called upon Mr. Lee, the Clerk of Committees, to ascertain from him, if I could, about the way in which it was constructed, whether under the supervision of the Inspector of Buildings, or not. My impression is that Mr. Lee, at that time, thought it did not come under the supervision of the Inspector of Buildings, or that he hadn't seen it, or something to that effect. I found out there was no person around City Hall that would be the proper person to go and see about it, and I thought the Chief of Police the only man I could go to and notify. I went down and told him I had information, from a very reliable mechanic, that the stand was unsafe, and after examining it myself I came to the conclusion, having entire confidence in the Chief of Police, that no person should be allowed to occupy it. It looked so ridiculous in my eyes that I didn't suppose the Chief of Police would allow any person to occupy it. Feeling sure about it I didn't suppose anything more need be done about it, and I didn't know anything more about it until I was informed sometime during the procession that it had fallen down.

Q. I suppose you were not much surprised when you heard it had fallen down?

A. I was surprised that any person was allowed to occupy it. I felt sure that nails only half driven into boards wouldn't hold people up.

Q. Did you examine all the platform through?

A. Yes, sir; on the rear part of the stand. I handled every board as I went along.

Q. Examined the nailing?

A. Yes, sir.

Q. Was the nailing as Mr. Adams testified?

A. I was not here then.

Q. Not properly driven?

A. Not properly driven. In some places the boards lapped — I don't know as I am giving the proper mechanical terms — over parts of the stanchion. I didn't think it would stand a great deal of weight. I made up my mind that the staging would fall with very little weight. There were no braces to keep it from going.

Q. (By Mr. FELT.) What time in the day was this?

A. Not before three o'clock, and before five. I think I got home somewhere about six o'clock.

Q. What time did you notify the Chief?

A. I have no means of knowing the exact time, but sometime in the afternoon.

Q. Were you inspecting it accidentally, or was your attention called to it?

A. My attention was called to it by a mechanic, knowing I was connected with the City Government. He told me that that staging was unsafe, and, if many people went on it, it would fall down. Then I thought I would satisfy myself.

GEORGE NOWELL. — *Sworn.*

Q. (By the CHAIRMAN.) You are a practical builder?

A. Yes, sir.

Q. Have you had occasion to examine this platform?

A. I read the report in the paper the next morning after the accident, and I had the curiosity to go up and see both the platforms; and I first saw the one down on Blackstone square, and then went in to see the one standing. I fully agree with that report, and that is just the report that should be made.

Q. The sum and substance of your testimony would be contained in that report?

A. Yes, sir. If you wish me to explain why I believe it, I will, by the plan.

Q. If you please.

A. [Witness pointed out the details on the plan.] You observe that these seats are below. This point being as a fulcrum, this acts as a lever. If persons should get off those seats to vacate, then those on the upper seats would be on the end of the lever, and of course it would go over backwards. Now, then, lengthwise of the square, — I don't know how long it was; perhaps 200 feet, — there were no braces to it. Of course there should have been braces. I suppose that 200 feet of inch boards would have braced it sufficiently, so that it would have been amply strong in that direction.

Q. Were there any braces along there?

A. None at all; and that was very surprising.

Q. Don't you think it displayed a great deal of ignorance in the business? Would any skilled mechanic do anything of that kind?

A. I should think not, for a moving load. If it were a still load we shouldn't brace it, but for a moving load it was most hazardous. I agree with the report that the construction is very bad. In the first place there are no braces except under the fence. These braces should have been back in this direction. If that additional step had been a foot longer it might have been stronger; and this seemed to be a great oversight. It would have had two extra bearings.

Q. What about the nailing?

A. I didn't examine the nailing. It was the way it was constructed. The placing of the timber in such a position in which an accident would be likely to occur. If that same material had

been placed in a different and proper form, it would have been sufficient, with the addition of 200 feet of boards, to stand the load.

Q. (By Mr. RICHARDSON.) Is not the back post, that runs down to the ground, perpendicular?

A. I suppose it was intended to be perpendicular, but when I saw it, it leaned.

Q. (By Mr. WOLCOTT.) What did that rest on at the basis?

A. The whole structure leaned to the rear when I saw it.

Q. What did the base rest upon?

A. Upon boards.

Q. (By Mr. FELT.) Did they lean against the iron fence of the square?

A. No, sir; I think it didn't go to the end of the fence. The front only connected with the fence, not the ends. I suppose the putting on of those additional seats added very much to the danger of risk, because it brought the load back. But I don't think that was what occurred when the other part of the platform fell. I think the real cause was not having lateral braces.

Q. (By Mr. J. F. PAUL.) I don't understand whether you thought it would tip back or not?

A. I think it would if a few persons had moved. If these seats had been clear, and persons had rushed for those seats, and those left over there (pointing to the plan), I think it would have tipped backward.

Q. Do you say that that piece was plumb?

A. I should think it was nearly plumb.

Q. Would you say that that would tip over if that stood eight inches back from the front, with a bearing from the lower end of that post?

A. If that were constantly moving back and forth it would break the nails and be constantly breaking back.

Q. I did not understand you when you were speaking of that structure, and I should like to have it explained again.

A. If this structure was ten feet in height, I should have placed this five feet at the least back of the line — the rear post.

Q. Make it one half pitch?

A. Yes, sir.

Q. And you think that would make it safer?

A. Yes, sir; I think so, with one perfect brace to hold it you will keep it from reeling as well as the others.

Q. Would the bearing reel backward or forward?

A. It would reel over to the rear.

Q. Can you make a fulcrum between those two bearings?

A. Yes, sir.

Q. Do you undertake to tell this committee that if it had been braced it would have crushed down?

A. I think it would if it had not been braced for a moving body. There was nothing in it except those nails. There should have been six nails instead of two.

Q. Do you know whether that plank was on top of those post-holes?

A. I could not see certainly, but I think it was.

Q. If it stood on top of the post wouldn't it brace it right there?

A. No, sir. I think the moving would draw the nails off. If the load was a still load, and not a live load, perhaps it might have stood, perhaps not the weight on it, but perhaps a certain weight, — I don't know how many pounds. Of course, when the wood is closely fitted together, it would hold better than if it was not put together so closely.

Q. How much should you think one of those bearings — suppose it held 16 persons, — if I understand, that is something about 2,000 pounds, — how would that compare with the dead weight of green lumber piled upon that same platform?

A. If I was going to support a platform for a moving load, I should make it twice as strong. For a crushing load one would hold just as much as the other.

Q. Then, sir, what amount would you say it would take to crush that down, granting your calculations? I mean if that were stayed, — and you agree with the gentlemen, that it was crushed, — now, I ask you what amount of weight do you say would crush it down?

A. I don't know how much solid weight.

Q. Give us an idea. It is supposed to hold 2,000 pounds.

A. Across the entire section?

Q. Yes, sir.

A. 2,000 pounds to each?

Q. To each section, about — come, so many pounds?

A. It wouldn't sustain 2,000 pounds.

Mr. Paul. You would be astonished if it sustained 7,000 pounds. The committee can see the amount of weight it will sustain, if any gentlemen will read an article in "The Engineer." I say it is impossible to tip that back by loading it upon the front, I say it has been tested, and I am glad to have it decided by such judgment as that of "The Engineer."

The Chairman. — That is not the question for us to decide. The question for us to decide is whether it was built in such a workmanlike manner as to hold the people put upon it.

Mr. Nowell. — I want it understood. I stated that if it had been a still load it might possibly hold. I suppose that two nails driven in those boards, with a still load, would hold a great deal; but when you come to move it you break the nails, and the people upon the platform would do just the same. That is my principal reason.

Capt. Small, of Police Station 5. — *Sworn.*

Q. (By the Chairman.) Do you remember the 17th of September?

A. Yes, sir.

Q. Were you at the square?

A. Yes, sir; a part of the time. I wasn't there all the time.

Q. Were you there at the time the accident took place?

A. Yes, sir.

Q. In what condition was the platform — I mean as to the people on it? Will you state that, as to the time the accident took place?

A. The number of people?

Q. Yes, sir.

A. I couldn't say.

Q. I mean, was the place full?

A. I should think not; I was informed by the officers there that it was not full; that the people were not sitting close together, and that there could have been a great many more upon the seats than there was. I didn't take notice whether the seats were full or not. The officers said they were not full. The Lieutenant is here; he was upon Blackstone square and may know better. The sergeant in charge of the platform in Blackstone square sent word to me the fact that the seats had started. I went over immediately with the officer that came to the station. I got into the square and the seats started and went down.

Q. That is all you have to say about it?

POLICE LIEUTENANT PIERCE. — *Sworn.*

Q. (By the CHAIRMAN.) You were on the opposite side of the street?

A. Yes, sir.

Q. Will you state how the people looked, from the other side, as to the place being full?

A. I shouldn't think the seats were more than two-thirds full. I should think not.

Q. (By Mr. FELT.) The Blackstone-square seats?

A. Yes, sir.

Q. Did you notice whether they were on the back or upper seats or not?

A. I should think there were not as many on the back seats as there was on the front part. I judge more of that from my own side. They looked to be more down, nearer the front, than upon the back seats.

A. S. RIPLEY. — *Sworn.*

Q. (By the CHAIRMAN.) You are a practical carpenter?

A. Yes, sir.

Q. You were present at Blackstone square when this accident took place?

A. Yes, sir.

Q. Could you state how the people seemed to you on this platform? Was it filled, or half full, or two-thirds?

A. I should judge it was about half. I don't know but it might be a little more.

Q. Than half full?

A. Yes, sir. I had three tickets.

Q. You are a practical mechanic?

A. Yes, sir.

Q. You are a builder?

A. Yes, sir. I had three tickets given to me by Alderman Wilder. I gave them to my family and told them I would come up. When I got there I thought the structure was not safe, and I got them off about ten or fifteen minutes before it went down, and I was assisting to get some others off. I also spoke to the police, and Mr. Coburn, a builder who was with me, and we asked the police to stop the crowd from going on there, as it was dangerous. They didn't stop them all, and they seemed to be clearing them off.

Q. It seemed to be no more than half full when the platform broke?

A. I should think so.

Q. Were there many on the back seats?

A. At the time I got my family off I should judge it was pretty near full. They seemed to go to the back seats first, and after this began to sway, some one asked me if I didn't think it would stand if they cleared the back seats and came on the front. I told them I certainly thought so, but I told them I thought it best to get them off the seats. I shouldn't think it was more than half full.

Q. (By Mr. RICHARDSON.) You saw it go down?

A. It went lengthwise, all one way.

Q. All at once?

A. Yes, sir; all at one crash. I was hit in my shoulder and arm when it went down.

Q. (By the CHAIRMAN.) Did you examine it when it went down?

A. I looked at it more, and from the looks I pronounced it unsafe and got my family off.

Q. It didn't need a thorough examination to make it appear not strong?

A. I saw there were no braces upon it, and that attracted my attention.

Q. (By Mr. FELT.) Did you notice anything about the scarcity of nails?

A. Yes, sir, not at the time, but since.

Q. (By the CHAIRMAN.) You have heard the testimony of some of the gentlemen?

A. Yes, sir.

Q. Would you differ from them?

A. I should differ with them as to the danger of tipping over backwards; I don't think it tipped over backwards. If it had been nailed up tight, I don't think it would have gone down. It went down for want of proper construction.

Q. You think it wasn't properly constructed to hold people upon it?

A. Yes, sir.

Q. (By Mr. RICHARDSON.) Do you think the people on that back seat was the cause of its falling?

A. There were more people up there, and the heft being so high, and the want of lateral braces, I think that it would have a tendency to start it quicker than it would otherwise.

E. H. SAVAGE, CHIEF OF POLICE. — *Sworn.*

Q. (By the CHAIRMAN.) Will you state, Mr. Chief, what you know about this Blackstone-square platform — what information came to you, through whom and to whom you communicated any information you had in regard to the safety of this platform?

A. I was at my office on Sunday afternoon, late in the afternoon, and Councilman Fraser came in and said to me, as near as I can recollect it, that fears were entertained that the Franklin-square platform was not safe. I don't think he told me how he got his information. I knew nothing of who had the care of building it; but it occurred to me, if there were really grounds for fears, it was proper I should not pass it unnoticed. There wasn't anybody at the City Hall that could give me information at the time, that I knew of. I thought I should notify some one. I think, just previous to that, I had telegraphed to Capt. Small to come down to the office, as I wished to see him with regard to making some further police arrangements, to take care of what was on his district, including those platforms. The Captain came down, and in querying who, in my mind, it was proper to notify, knowing that Alderman Wilder lived in the south part of the city, I wrote a letter to Alderman Wilder, saying that fears were entertained that the Franklin-square platform was not safe, and handed it to the Captain, and requested him to place it in the hands of an officer. He said to me it was doubtful if he would find the Alderman at home in Worcester square. I told him to find him. He started away. After the Captain had gone it occurred to me that it was hardly just to trouble the Alderman with it, as I supposed that there were guests here from other parts, and he might be with them; and I though it might be well to notify Mr. Shaw, who was the proper party to inspect it. I did not go near it myself, because I didn't consider myself an expert, and I didn't know it was any of my business any way; neither had I time; so I didn't go near it myself. But I wrote a letter to Inspector Shaw, looked up his residence, and placed the letter in the hands of officer Currier, who was in my office, and told him to place it in the hands of Inspector Shaw. He went to East Boston and reported to me that he had placed it in the hands of Mr. Shaw. I think the purport of this letter, or the substance of it was, as near as I recollect, that fears were entertained that it was not sufficient to hold the weight likely to be put upon it. I waited until Mr. Currier came back, and he said he placed the letter in the hands of Mr. Shaw, and Mr. Shaw said he would attend to it. The next morning I was very busy, Deputy Quinn was in charge of the office, and before I left to go to the head of the procession, the Deputy told me that Alderman Wilder had been in, and said that an examination had been made up there, and everything was safe. I being pretty closely engaged

throughout the rest of the day, didn't pay any more attention to it; I didn't think of it until I was informed on the line that the accident had occurred.

Q. Anything else you want to add?

A. I don't recollect anything now. The whole structure has been in charge of an officer since then.

Q. Have you a copy of the letter notifying the Inspector of Buildings?

A. No, sir. I did not take a copy of the letter. Mr. Shaw afterwards told me he received the letter and placed it in the hands of an officer.

Mr. T. G. Gargan, Counsel for Mr. Shaw, Inspector of Buildings, produced the letter and the chairman read it, as follows: —

OFFICE OF THE CHIEF OF POLICE,
BOSTON, Sept. 16, 1877.

OLIVER L. SHAW, ESQ., *Inspector of Buildings:* —

I am informed that fears are entertained that the seats erected on Franklin and Blackstone squares are not of sufficient strength to sustain the weight that will be placed upon them, and I thought it would not be out of place for me to inform you.

Yours truly,

E. H. SAVAGE,
Chief of Police.

Q. That is your letter, Mr. Chief?

A. Yes, sir.

Q. What time did you write this letter?

A. Well, I think it must have been — I don't know the time, but I think it was — somewhere between four and five o'clock.

Q. Did you send it by special messenger?

A. I sent it by Mr. Currier; I told him to put it in Mr. Shaw's hand, and Mr. Shaw told me he did it.

Mr. GARGAN. It was in consequence of the information received from Capt. Small that you sent this letter?

The CHAIRMAN. — From Mr. Fraser.

Mr. GARGAN. From Mr. Fraser. I understood him to say he had an interview with Capt. Small that afternoon.

WITNESS. — Capt. Small came to my office.

Q. And then you wrote this letter?

A. Not this one, but the one I sent to Alderman Wilder. This one was written and placed in the hands of officer Currier.

Q. After you had seen Capt. Small?

A. Yes, sir; thinking I had perhaps better not notify the Alderman.

Q. Did you report to Capt. Small any news that you received as to the safety of the structure after you gained that information?

A. I think the captain knew the contents of the letter I wrote to Alderman Wilder.

Q. That is not the question. After you notified Mr. Small that the structure was not safe, did you send him any instructions as to whether he should permit people to go upon those stands?

A. No, sir. I think I had no right to do so, especially after

he had informed the Inspector that I had been informed it was unsafe.

Q. (By the CHAIRMAN.) When did the Inspector tell you it was safe?

A. The Inspector didn't tell me it was safe. As I stated before, the Deputy who was in charge of the office told me, on Monday morning, that Alderman Wilder came in and stated it had been inspected, and was all right. That was Monday morning, perhaps in the neighborhood of eight o'clock.

WM. H. LEE. — *Recalled.*

Q. (By the CHAIRMAN.) How many tickets were issued? How many was the platform intended to seat?

A. 600 for each, sir.

Q. The addition included?

A. No, sir.

Q. I mean the whole, with the addition to the platform.

A. It was calculated to have 600 seats for the original, and 225 for each addition.

Q. That was 825 on each platform?

A. Yes, sir.

JOSEPH F. PAUL. — *Sworn.*

Q. (By the CHAIRMAN.) Mr. Paul, you have heard the testimony of the members of the committee as to the contract made with you?

A. Yes, sir.

Q. Have you anything to say about it?

A. I have my story to tell, sir.

Q. What is your story?

A. I will begin at the beginning of my knowledge with regard to the platform being built, and go through, if you please, and tell what I had to do with it. On Friday morning — it must have been three weeks ago last Friday — I arrived at my office 15 minutes before 7 o'clock. Mr. Warren Hayford was there, and said that a member of the committee, Mr. Nugent, was at his house or had seen him the day before, and said that they proposed to build some seats.

Q. What is Mr. Hayford's business?

A. He is a carpenter, and wanted to know if I would furnish him the lumber, and take it back again, — a thing which I had just done on another occasion. I told him I would, and gave him the price which I should charge for it per thousand, allowing for wastage, etc. He asked me about how much it would take. I made a sketch, which I happen to have in my pocket at this time. I wish the committee could find the sketch which I made from this; I made a sketch on an inch and a half scale; this is the original sketch which was made that morning. It is not made to a scale, but simply for the purpose of making an estimate. I made that sketch, and figured these sections to be 8 feet apart.

I had not got the distance, had not been in the square, and could not have told whether the posts were 16 feet apart, 10 feet apart, or 12 feet apart, and did not know where they would stand, only on the walks, as stated to me. I figured up these sections at 8 feet apart. Mr. Hayford told me how they wanted to place the platform, and it is shown on that scale. I told him it would take about 17,000 feet of lumber. Mr. Hayford figured the lumber by the amount which I had given him per thousand, and figured up what his labor would cost (which I have not the remotest idea of); he figured up what his nails would cost (which I have not the remotest idea of); made this draft for the platforms, and built them by it. I took the lumber back again after it was done, and took it upon the basis that it would not take over 17,000 feet. I made the calculation on the basis of the way these stands were made; the plans are about the same. After that, Mr. Hayford asked me if I would make a sketch or a scale that he could take to City Hall at 1 o'clock. He said they wanted a plan, and that they would meet at 1 o'clock. I told him yes, and took a piece of brown paper and made a plan during the forenoon sometime. I was called off in the mean time. I made the plan on an inch and a half scale, I think it was; it is on a piece of brown paper, and the figures are marked on the plan, — about a foot rise, a foot and 8 inches run, and a 2-foot and 4-inch platform. I had a note to come down town, or to be down town at 10 o'clock.

Q. From whom?

A. On business of my own. I took that plan with me and went to Williams Market, where Mr. Hayford is at this time raising the Williams Market, to carry it to him. His men said they believed he had gone down town. I said I had a plan for him and they said they knew it and said I was to leave it there. I did not know what to do, whether to leave it or take it with me, knowing that he had got to meet the committee within two or three hours. I finally said, "I will take the plan with me, and if I do not meet Mr. Hayford before, I will be there at City Hall at 1 o'clock and meet him," — because I did not know the gentleman who called on him (Mr. Nugent), though I have seen him since. I got through with my business about 12 o'clock, or about 12 o'clock I had got back again to the building. I got out of the car and went into Williams Market a second time, and then they reported that Mr. Hayford had gone down on business and wanted me to be there at 1 o'clock. I hurried home and hurried through my dinner and arrived at City Hall about quarter past 1 o'clock; I know I hurried because I found I was late. I looked through the corridors and could not find Mr. Hayford. Col. Wilder came upstairs, and I said to Col. Wilder in these words, "I am here to meet Mr. Hayford, who has made you a proposition for the erection of platforms on the squares, and I have a sketch of what he is going to do." Col. Wilder said to me, "Have you the plan there?" I had the plan in my hand and said I had. He said, "Come in here; we are in session now." It was then all of half past 1 o'clock I should think. I went in and stated just what Col.

Wilder says. He asked me the price and I told him his price was $300. Col. Wilder asked me if that meant $250, and I told him I did not know; I supposed the man meant what he said, but at any rate I was not authorized to do anything more; I was there to give him the plan and I should not have known the price except that he figured it up at my place. I never made a figure upon it, and I am not in the habit of stepping in and taking a man's job out of his hands, especially one who has worked for me as honestly as Mr. Hayford has. Upon that Col. Wilder asked me if I would leave the plan; but he asked me in the first place how many it would seat. I had not figured it, and could not tell whether it would seat 1,000 or 2,000. I only knew the length was 330 feet, and I sat down and figured out that it would seat 1,237. I said to Col. Wilder, "You had better take out some for your entrances in the centre and at the ends, and I think you had better call it 1,000." They said that was about what they wanted.

Q. Do you mean to say that you had all this conversation with Col. Wilder?

A. Yes, sir.

Q. He never mentioned it in his testimony?

A. Well, that is the conversation I had. The matter of figuring the seats, I know he did not mention, but I think Mr. Lee will remember it. I sat down at Mr. Lee's desk and figured these seats and made that memorandum on that piece of paper. When I got up to go out Col. Wilder asked me if I would leave the plan, and I told him "Yes." When I came out I met Mr. Hayford and he said, "Where have you been? I have been looking for you." I said I had been there. The door was closed as soon as I went in, and they unlocked it when I came out. I told Hr. Hayford, "I have left the plan and told them your price."

Q. Did you tell the committee that Mr. Hayford was to perform this work? Did you mention the name of Mr. Hayford to the committee, or did they know it when you went in there?

A. No, sir; I do not know but what I did. I won't say that I did. I mentioned it to Col. Wilder, and told him that I was looking after him.

Q. I mean when you had the conversation with the committee. Did you mention Mr. Hayford to them, or was the conversation carried on with you?

A. It was carried on with me.

Q. And as if you were the person who was to make the contract?

A. The conversation was carried on with me.

Q. As if a contract was being made with you?

A. There was no contract being made. The conversation was carried on with me, and they asked me to leave that plan. They told me, in the first place, that the thing had been given up entirely.

Q. But when the bargain was closed whom did they inform?

A. Well, sir, if you will allow me, I will go on. I left the room, met Mr. Hayford, and told him what I had done and said, and went about my business as usual, thinking nothing more about

it. The next morning, when I arrived from the post-office, about 10 minutes past 7, Mr. Hayford was in my office, and said he had been notified that he had got the job.

Q. *He* had been notified?

A. Yes, sir; *he* had been notified, and I had not.

Q. What did Mr. Lee tell you?

A. I will tell you. I missed my memorandum-book and there was something in it of value to me, but not to anybody else; and I started to go to Mr. Lee's office to get it. I was there from quarter to half-past 8 o'clock in City Hall, and they told me Mr. Lee was not in. I went to the Messenger's office, supposing he had keys to the doors, and told him I had left my memorandum-book in Mr. Lee's office. He took his own keys out of his pocket, gave them to a young man, and I went in; there laid my memorandum-book, which I picked up. I went out and thanked the Messenger for his kindness, and told him I had forgotten my book, because I wanted him to understand what I was there for. As I was coming downstairs, and had got from a half to a third of the way down, Mr. Lee leaned over and said, "Mr. Paul, are you looking for me?"—I said, "No, sir."—And he said, "Have you heard of the action of the committee?"—I said, "Yes, sir." Mr. Hayford had notified me that morning, and that was the first and only notice I had. The work was commenced on Monday at my place. No man of mine, and no man in my employ, ever did one day's work, or one hour's work, or drove one nail in that stand from beginning to end. Mr. Hayford not knowing about the work, I was up there, and because I made the sketch I told him how I should place these posts (the front bearings). After I had been there an hour or an hour and a half I went away; everything was going along all right. That was Tuesday forenoon. He said, Tuesday morning, that Mr. Nugent told him the day before that the committee had made inquiries whether the seats were going up in the square; and Mr. Hayford said, "I guess I will go up and leave two men to put together these sections or supports;" they were all put together at my wharf. After putting one more together Mr. Hayford went up there with his men, and let the two men finish it. Every section was put together, notwithstanding the mistakes made by them, or the difference in them, in one place, with the exception of perhaps three or four, upon a form which was made to put them together by. I was there on Wednesday probably two or three times, more to ask Mr. Hayford if he had lumber enough than for anything else, because I took no interest or care with regard to the work. On Thursday morning I went to the other place, where I took a platform to build, and from that time till Saturday night I was not away from that place one half-hour during working-hours. Now, I wish to come to the part where Mr. Flynn and Mr. Lee came up. That day I was at my office; I was not at the stand, and had not been there. Mr. Hayford came down in a carriage and said they wanted some extra seats. I asked him what it was worth to put them up, and he said it was worth more than to build the others.

Q. (By the CHAIRMAN.) With whom did they carry on the conversation at that time?

A. When I got up there with Mr. Hayford, I found Mr. Lee and Mr. Flynn, and they said they wanted to put up two more rows of seats. I said, "Then you will have to put up an extra post outside," and I told them what I would do. I was acting as I should act for any of you; gave him the advantage of my experience if it was worth anything, and told him how much lumber it would take; the labor part I did not know anything about. Mr. Flynn spoke about putting either two rows or one row, and I said, "If you put on one it will make precisely six feet in height, enough to make a section; and I should do it in that way because I do not think it will weaken it at all." I went over on Franklin square, and that was the only time I set my foot on Franklin square until since the downfall. I went over there with Mr. Hayford and Mr. Hayford figured up what it was worth. He said to me, "If we do these others in the burying-ground, you will have to let me have men." I told him I would do so; and I did. It took his whole time on Blackstone and Franklin squares up to Saturday night. Those in the burying-ground were nothing but mere platforms.

Q. We are not so particular about that as we are about whether you or Mr. Hayford made the contract with Mr. Flynn?

A. There was no contract about it, but I fixed the price.

Q. Did you mention Hayford to them?

A. I did not.

Q. Did they say to you, "Hayford can go on with this," or did they say, "You can go on with this and finish it."

A. There was nothing said about it while they were talking with me.

Q. As if you were the person to do the building, or as if you were acting as agent for somebody else?

A. They talked with me precisely as any man would letting out a job.

Q. To another?

A. Yes, sir; whether I was going to frame or finish it, they talked to me as if I was going to act.

Q. Did you receive a telegram from Mr. Lee?

A. I did after I got home that night.

Q. [Reading the telegram already put in.] Is that the substance of it?

A. I should say it was. They said when they were there that they should telegraph me, but I did not feel it necessary, and told them why I did not.

Q. Was Mr. Hayford there?

A. Yes, sir.

Q. Present all of the time?

A. Yes, sir; present all of the time.

Q. Did he say anything?

A. He did not know any gentleman of that committee, or Mr. Lee; that was the reason he came to me.

Q. Your testimony then is that if you did anything you were acting for Mr. Hayford?

A. Entirely so.

Q. Had you ever mentioned his name to them?

A. I had never mentioned it.

Q. But you were acting for him?

A. Yes, sir.

Q. And whatever you did was simply in the capacity of agent for him?

A. What I was doing was a kindness to Mr. Hayford.

Q. Do you think that Mr. Flynn and Mr. Lee were not under the impression that you were the person with whom they were dealing?

A. Yes, sir. I have no doubt they did. If this accident had not happened they would not have asked the question; they might have thought I was doing the work.

Q. Do you remember the conversation I had with you, Mr. Paul, in the Alderman's room, — a passing conversation?

A. At what time?

Q. When Mr. Kendall was present and asked for a ticket, and Alderman Gibson was there; three or four days before the 17th of September, when I asked you, in a half-jocular way, if that was going to be built strong, or if you were not going to give a pretty good strong job so that nobody would fall down and break their necks? I said it in a half-joking way.

A. I remember —

Q. I was addressing you as if you had the contract.

A. I remember to have been there when the alderman from East Boston was there.

Q. It was in a passing way or half-jocular way, and that is the reason I asked it.

A. I have no doubt of it; but I wish to state further that I have stated just my relation with Mr. Hayford; that I never went on to the platforms, and I never pieced these platforms in any way, and never took any care of them at all, because the one where I was myself was the one that some thought was going to fall down, and I was looking out to make that strong. I had nothing more than a general interest in the others. I think if I had seen as much as others of them I should certainly have told where the defect was, and had it remedied; I should have done it as a good citizen. I know very well the person who built them would have been willing to remedy such a defect, for it would not have cost a five-dollar bill; but Mr. Hayford was not under my control, nor was there a man that I employed at work upon those stands. I never considered the job mine except precisely as I stated it here. I was acting for Mr. Hayford as I would have acted if he was building a house for you; I gave him all the assistance and encouragement that I could.

Q. But do you not think the committee, or these gentlemen who were dealing with you, were under the impression that they were dealing with you as the person who was really building them?

A. Well, I cannot tell about that; I cannot tell what their impressions were.

Q. Whether they thought they were dealing with you as if they thought there was nobody but yourself?

A. I do not know why they should. I know what I stated to Mr. Wilder in the first place. I do not suppose they cared until the accident happened, and then, of course, the responsibility came somewhere. If the thing had gone through all right there would have been no occasion for inquiry, and they would not have cared who built them.

Q. Would Mr. Hayford put in a bill, or you, if there had been no accident?

A. Mr. Hayford. I have no charge against the city of Boston. If I had built it I should have had it in the day I delivered the stuff. My charges are to Mr. Hayford, for the use of the lumber. I think that gentlemen can see that in my conduct and in my management, and by the very fact that I took no interest in it, that I did not consider the contract mine.

Q. Does Mr. Hayford do work for you?

A. Oh, he has built blocks of houses for me in years past; he has been a builder about as long as I have. He has built stores and everything else. As you have asked several gentlemen how I happened to come in there, I wish to say that I am not in the habit of running to the city of Boston to get jobs; I was there for the benefit of a friend, and to aid him. Nobody had asked me about it, — no committee man, — and I should not have pushed myself in. I did not know who the committee were until Mr. Hayford told me that Col. Wilder was one of them. That is the way I came to approach Col. Wilder when I came upstairs and told him what I was there for.

Q. (By Mr. WOLCOTT.) Were you aware how largely the committee were trusting to your own reputation in the matter?

A. No, sir; I never heard of that until after the accident; they did not tell me so.

Q. (By the CHAIRMAN.) Did Alderman Wilder inform you about the proposed erection of these platforms?

A. Never, sir.

Q. The first intimation you had about that was from Mr. Hayford?

A. Yes, sir, in my office.

Q. You never mentioned Mr. Hayford to the committee or anybody when talking with them?

A. I mentioned to Alderman Wilder whom I was looking for.

Q. Then, when you were talking about how much it was worth, did you say you would have to see Mr. Hayford?

A. Mr. Hayford was there; I did not have to say so.

Q. Did he say anything?

A. Nothing at all.

Q. You did all the talking?

A. I did the talking.

Q. You did not refer to Mr. Hayford? He gave you full power?

A. No, sir; he figured on the cost of the seats.

Q. I mean additional seats?

A. I mean additional seats.

Q. Was there any difference as to the price of these additional seats?

A. The question was to figure up how much it would take and it was a very simple matter.

Q. (By Mr. FLYNN.) Did Mr. Hayford know when he went for you what Mr. Lee or myself wanted of you?

A. Mr. Hayford told me what you wanted; that you wanted extra seats.

Q. Did he know anything about it?

A. If he did not know he could not have told me.

The CHAIRMAN. Did you say anything to him, Mr. Lee?

Mr. LEE. Nothing, sir.

The CHAIRMAN. Did you, Mr. Flynn?

Mr. FLYNN. Not until after Mr. Paul came. We inquired for Mr. Paul and asked this man to go for him; we made no suggestions to him at all until Mr. Paul came.

Q. (By Mr. FLYNN.) Now you say Mr. Hayford was present during all this conversation. Will you name one spot where he was when we were figuring?

A. (By Mr. PAUL.) Out at the further end of the square.

Q. Where?

A. Mr. Hayford went across to the other side on Franklin square with me, because on Blackstone-square side they had not finished and on the other side they had. I went over across with Mr. Hayford to see where he would have to put the braces.

Q. Do you remember where the figures were made for that extra row of seats?

A. I think at the upper end of Blackstone square. I think you and Mr. Lee stopped there and I went to the other side.

Q. Were they not made on the south burying-ground between you and Mr. Lee and myself?

A. No, sir.

Q. Did you not take your paper out there, and put it up against a stone wall, and figure on it, and give us the cost of the old one, and say these seats would cost $17 more than the original ones, and that you would do the other for 30 cents a running foot, or for $90? Did you not give the figures right there at the south burying-ground? Was Mr. Hayford there at all?

A. I think I gave you figures for the seats before we went up to the burying-ground at all.

Q. That is not my recollection of it.

A. It is mine.

Q. Then again I know that Mr. Hayford was not present when we made the contract with you; there was nobody present except you and Mr. Lee and myself.

A. There was no contract made, Mr. Flynn.

Q. There was only a difference of $24 between us; didn't I say if you would do it for $200, that I would recommend the committee to have it done, and that if they voted to do it we would telegraph you?

A. Yes, sir, that statement was made.

Q. Was not that with you?

A. I did not agree to do it for the $200, because in the telegram I am asked to answer yes or no. I took that to Mr. Hayford, and he said, "Do it if you cannot get any more."

Q. Did I not say if you would do it for $200 I would recommend the committee to have it done, and that if they voted to do it we would telegraph to you that afternoon by 2 o'clock?

A. Yes, sir.

Q. Do you think that Mr. Hayford was present at that time?

A. I cannot say whether he was or not, because I walked around there with you a great deal after I had figured up the seats on the two squares and went up to the burying-ground.

Q. (The CHAIRMAN.) Has any other gentleman any questions to ask?

Mr. PAUL. — I would like to state, a little further, that I take the responsibility so far as the construction or style of these platforms is concerned; beyond that I feel myself no more responsible for anything with regard to them than any gentleman of this committee, notwithstanding I talked with the committee; because I considered it in the hands of a competent man. I was acting for Mr. Hayford, and took no interest in it myself. Further, it would have been a piece of presumption for me to undertake it, when it was under the charge of the Inspectors themselves, and they had passed upon it; but had I noticed it as other gentlemen did, and had my forethought come earlier, I should not have hesitated to say so.

Q. (By Mr. RICHARDSON.) Just what amount of responsibility do you take in this matter?

A. I mean for the strength of the stand; the crushing.

Q. Do you mean to say that you omitted a certain particular brace in its construction?

A. No, sir.

Q. And for all the rest you take the responsibility?

A. No, sir; I take the responsibility of that frame and of its strength.

Q. (By Mr. FELT.) Did you see it every day?

A. Only as I rode by. I was not in Franklin square until Wednesday.

Q. (By Mr. WOLCOTT.) Did your plan include lateral braces?

A. You could not show them on that side.

Q. I mean at the end. We have heard a great deal about lateral braces.

A. Yes, sir, the support was on the back side; there were two ledgers running through. Another thing I must explain to you. You have heard a great deal about the patching of these frames. Some one, I think it was Mr. Flynn, requested Mr. Hayford to have that rise about 14 inches instead of 12. I think the proper method was taken to make that rise; at any rate, I take the responsibility of that. I do not think it weakens it at all, but on the contrary it made more timber; I do not think it weakened the timber at all. They were made to make the rise all the way up, and that shows the way it is put in. It is a piece put

up and down the whole length, and then there is a piece put on the top of the risers, to make them 14 inches.

Q. (By Mr. FLYNN.) Were not all these risers and standards made at your wharf?

A. Every one of them.

Q. Were they not nailed together there?

A. Yes, sir.

Q. And brought to the square in your wagons?

A. Yes, sir.

Q. And were not you there when they were delivered?

A. Yes, sir.

Q. When they were taking them off and putting them into the square?

A. I was there the same day they commenced putting them up.

Q. I meant on the Thursday afternoon that Mr. Lee and I went out there. Did you not direct the teamster where to unload them?

A. That I might have done, sir.

Q. Was you not there some time after we left, arranging or managing the construction of them?

A. Not long, sir; if it was Thursday afternoon, not long.

Q. Did you not have a plan of them, and was you not talking to Mr. Hayford? I was introduced to him that afternoon, I think, and I recollect now of seeing him there. Did you not have a large sheet of paper and a plan of this stand, and instruct him what to do, while Mr. Lee and myself were there?

A. Of the stands there?

Q. On the Blackstone square?

A. I think not.

Q. But you do remember being there?

A. Yes, sir.

Q. And notifying your teamsters where to put them?

A. I should naturally do that, sir, where I was around, if it would be an advantage to tell my teamster where to land his stock.

Q. These frames were all made on the wharf, as you say, and there was nothing necessary to be changed or altered except as ordered by the committee?

A. Yes, sir.

Q. (By the CHAIRMAN.) Is that the usual way when people buy lumber of you, to allow them the use of your wharf to do their work upon?

A. Yes, sir; if a man buys timber at my wharf, he frames his stock on my wharf; they make window-frames, and a great many other things there; because it would be very inconvenient to have chips left on these squares. By doing the framing at the wharf the job is done neatly. Everything was carried there as nearly complete as possible, in order to make the job as short as possible on the square. I want to say to the committee before I get through that I have had made three sections, — Mr. Hayford made them and set them up, — and they are loaded to-day with 6,800 pounds, and the deflection is only one-quarter of an inch. The

committee can see them if they will take the trouble. I had the test made for my own satisfaction.

Q. I suppose you do not deny that this stand fell down when not more than two-thirds of the people were on it whom it was expected to accommodate?

A. No, sir; but I do deny that it crushed, and that is the part I take the responsibility of, — of the strength of these pieces, that is what I take the responsibility of.

Q. (By Mr. RICHARDSON.) If you take the responsibility for half the style and construction, I do not see how you undertake to divide it. Does not a frame of a thing or a skeleton of a thing embracc whatever is necessary? Don't it embrace a brace as well as a post?

A. Yes, sir.

Q. Then why are you not responsible for the brace?

A. If I give you these posts to stand up straight, two of them, I would suppose you knew enough to put the stays in. It would not require much knowledge if I gave a man a plan of these posts and told him what they were for, and did not make another section, or did not deem it necessary.

Q. You let out the job then to men who were incompetent?

A. Well, I did not let the job out; that is the difference.

Q. Well, I do not see how you are responsible on one side and not on the other?

A. I take the responsibility. If I made a sketch which is wrong I accept the result, but if he did not put the work in I do not take the responsibility for that; if I put a patch upon a door and spoilt it, that I may be partly responsible for.

Q. If you had a proper framing plan it would show sufficiently all the pieces; a framing plan ought to have contained all the timbers, as I understand it, but I do not say that a brace was necessary.

A. I could not show it on a section like that. I simply made that plan and that little sketch to get at the quantity of timber which Mr. Hayford would need. It is not made on a scale; I figured it for him to get his estimate of timber from.

Q. You are figuring for the timber, but you do not figure for the braces?

A. Of course I make out the figures for that, and then for the lateral braces I might add 500 or 1,000 feet.

Q. Do you remember whether you figured for braces or not?

A. I do not; I have not the details.

Q. Would it or not occur to you to be proper to figure for that?

A. Well, sir, we usually allow for stagings and wastage from 500 to 5,000 feet, according to the size of the building. I intended to give Hayford the full quantity that he required to make his platforms. If he had figured 17,000 feet and my bill against him had been for 20,000 feet, I should have felt that the error was mine if the plan had not been changed; but if he had added to the quantity of lumber by adding to the plan it would not be my fault; because I furnished him lumber by the thousand I did not figure

for so much money, but what I thought it would take. But had it not been for his asking the question, what quantity I thought it would take, I never should have made that sketch. That little piece of paper I have in my pocket was made simply to get at the quantity of lumber; of course I could not tell without something.

Q. You do not remember whether you put in any for braces in your estimate?

A. I do not; I say my custom is to add for wastage.

Q. But whether or not you put in any lumber for braces you do not remember?

A. I have no doubt I did.

Q. Do you remember it?

A. No, sir. I could not remember such details; I mean about the matter of these braces on the back side.

Q. I do not mean the braces on the back side but the lateral braces.

A. These are the ones [referring to the plan].

Q. I do not mean those sticking out behind to keep them from tipping over.

A. These are what you mean [referring to plan].

Q. You do not consider it was a want of braces?

A. No, sir; you can tell that by the way it is built.

Q. (By Mr. JACKSON.) When your proposition was made was it done in writing or verbally?

A. There was no written proposition to my knowledge.

The CHAIRMAN. Do you want to call anybody, Mr. Paul?

Mr. PAUL. Mr. Hayford is here if you want to call him.

WARREN HAYFORD. — *Sworn.*

Q. (By the CHAIRMAN.) What is your business, Mr. Hayford?

A. I am a carpenter.

Q. Are you in business for yourself?

A. Yes, sir.

Q. Do you know anything about this contract with the city for building this platform?

A. What Mr. Paul says about my going to him at one time and requesting him to figure the amount of lumber was true, up to the time he went to City Hall. I know nothing about the conversation he had with the committee, because I was not present. As he was coming downstairs I met him, and he told me that the committee had got the plan and were going to act upon it, and I went away.

Q. Is that all you know about it?

A. Not all.

Q. Well, state all.

A. Then I think it was that night the gentleman of the committee who asked me to figure on the job, Mr. Nugent —

Q. Asked you to figure on the job?

A. Yes, sir. He left word with my men. I cannot tell what he said; at any rate he left the impression that I had the job. He

said that we had the job. I cannot tell exactly the words that he used. He left word with my men that the seats were ours or yours.

Q. (By Mr. FELT.) At Williams Market?

A. Yes, sir. I went around to notify Mr. Paul. He said he had left his book down in the committee room; that he was going down after it, and he should probably hear something about it.

Q. (By the CHAIRMAN.) Did he say that he was going to build the seats?

A. I cannot say how he worded it. I know he gave me the impression that he had got the job.

Q. Well, which did he say?

A. Well, he or I, I don't know which. I do not know how he worded it.

Q. Well, go along and tell all about it.

A. We went on to build them.

Q. Well, come down to the time when Mr. Flynn came up there.

A. He came, but I did not know who it was.

Q. What did he say.

A. He asked where Mr. Paul was, and I told him I presumed he was down at his office. I went down after him.

Q. What did you state to Mr. Paul when you went down there?

A. I told him there were some of the committee up there, and that they wanted more seats put on.

Q. Did they tell you they wanted them?

A. Yes, sir.

Q. Which of them told you that?

A. I think it was Mr. Flynn.

Q. Did they tell you where they wanted them?

A. I will tell you what he said. He asked me if there could not be another row of seats put up there. I think those are just the words he used.

Q. If there could not be another row of seats added?

A. Yes, sir.

Q. What did you say?

A. I told him I would go down after Mr. Paul.

Q. Why, if you were the contractor, didn't you make the contract?

A. I did not understand whether I was the contractor or Mr. Paul. He asked for Mr. Paul, and so I went after him.

Q. You did not know whether you or Mr. Paul were the contractor, and you said you would go after Mr. Paul?

A. Yes, sir; he called for Mr. Paul.

Q. Well, did you have conversation with Mr. Paul?

A. I simply told him that they wanted to show if there could not be another row of seats added.

Q. That was all the conversation?

A. Yes, sir.

Q. You heard Mr. Paul say that you had a conversation?

A. After we got up there?

Q. No, before you got up there; that he figured the whole thing in the carriage.

A. I think we did.

Q. You stated just now that you did not.

A. I would like to recall that; I think we did.

Q. State what conversation you had.

A. It was this, as far as I can recollect; that he asked what I thought it would cost.

Q. Did he ask it of you as an original contractor?

A. I could not say how he asked it. He asked me, and I told him I thought it would cost about 25 cents a seat.

Q. Did you state the amount for which it ought to be done, or did you let Mr. Paul do that?

A. There was nothing said about that then. When we arrived there the two gentlemen were up on the burying-ground, and we stopped on Blackstone square. They soon came down and told what they wanted. Mr. Paul and I went over to the Franklin-square side, and decided what to ask them.

Q. Who decided?

A. Mr. Paul and I together. He asked me what I thought about it, and I told him.

Q. You gave him your opinion?

A. He asked me what I thought it would cost, and I told him.

Q. (By Mr. O'Brien.) Did you make any arrangement with Mr. Paul as to lumber, and the price you were to pay him for lumber? Or how were you to be remunerated for your services?

A. I asked Mr. Paul what he thought the lumber would be worth, — the use of it there; and he said he thought it would be worth about $10 per thousand for using and waste; the figures we made up in that way after arriving at the amount it would take.

Q. But your remuneration was to be what?

A. I figured the lumber at $10 per thousand, and labor at $75. I forget just what I figured the nails at.

Q. (By Mr. Richardson.) When you took the lumber was it measured?

A. Yes, sir; we took account of it by the surveyor's marks. It was all picked out by Mr. Paul's men, and sent to us where we were at work making these frames.

Q. (By Mr. Felt.) Had you any doubt as to the safety of the structure when you left it?

A. I had not the least. I considered it perfectly safe, and was surprised when I heard it fell.

Q. (By the Chairman.) When were the Inspectors there?

A. I think the last time was Saturday.

Q. Afternoon?

A. Yes, sir.

Q. (By Mr. O'Brien.) Did they give it a very thorough examination?

A. I couldn't say about that. I was busy. I know they requested that these stringer-pieces should be nailed on. As far as the braces were concerned, it was an oversight. I admit it. I

had no idea it would need any; I was just as conscientious about it; it never entered my mind, being that length, and no higher than it was.

Q. (By Mr. FELT.) Well, all other builders seem to have a different opinion.

A. I know they do now. I do now. It is very singular to me that there is so much complaint since it fell down, and there was nothing said to me before.

Q. (By Mr. WOLCOTT.) Well, it seems there was some.

A. Never, to my knowledge.

Q. Well, it seems there was some.

A. I don't know who they made it to.

Q. They made it to Councilman Fraser.

A. Well, I have heard it since, but the thing was never suggested to me.

Q. (By Mr. RICHARDSON.) Which of the Inspectors did you see?

A. Mr. Frye.

Q. What conversation did you have with him?

A. I think none, with the exception that he asked me to nail these pieces on, and I told him I would do it.

Q. On Saturday?

A. Yes, sir.

Q. How late?

A. I think in the forenoon.

Q. (By Mr. FELT.) Is that merely to support these stringers?

A. Yes. He was around in the afternoon, and he said "I see you have got your pieces on," and I said, "Yes, sir."

Q. (By Mr. RICHARDSON.) Was it substantially done then?

A. Yes, sir.

Q. The same Inspector?

A. Yes, sir.

Q. Do you know whether there was more than one or not?

A. I did not see only one.

Q. He was there twice?

A. Twice to my knowledge.

Q. (By Mr. FELT.) You felt there were plenty of nails?

A. I did.

Q. What were the nails?

A. The nails in these cross-pieces were ten-penny, and all the rest were twenty-penny, notwithstanding some of the papers say they were shingle-nails.

Q. (By Mr. FLYNN.) Were you present when the contract was made between Mr. Paul, Mr. Lee, and myself?

A. I know there was some talk, I cannot say what, in Franklin square. You and me, Paul, and Mr. Lee started and went up to the south burying-ground together. I think I heard no conversation after that.

Q. Don't you know that is the place where the contract was made?

A. I do not.

Q. It was not made in your presence, was it?

A. I think the price — Mr. Paul told me the cost would be $67.00 or $67.50 a side, — that is, one on each side.

Q. You knew nothing of the south burying-ground platform?

A. I knew you were talking about it.

Q. Did you know the figures he put upon it?

A. No, sir; I never asked him what figures he got for putting on those top seats.

Q. Then Mr. Paul put them on without your knowledge?

A. Well, he told me had got a telegram to put them on, but never told me anything about the price, and I never asked him. I knew what he told me it would cost, but I never knew until this evening that it was less than that.

Q. Did you do any work at the south burying-ground?

A. No, sir.

Q. Did you not build that platform?

A. No, sir.

Q. You had nothing to do with the last contract; the work upon the south burying-ground was done by his men?

A. Yes, sir.

Q. (By the CHAIRMAN.) Your men did not work on the south burying-ground?

A. No, sir.

Q. (By Mr. FLYNN.) You did not figure on it?

A. No, sir.

Q. (By the CHAIRMAN.) Was there one amount for both the south burying-ground and these two platforms?

A. Yes, sir.

Q. (By Mr. FAGAN.) You stated a minute ago that the Inspectors were there on Saturday afternoon; up to what time were they there?

A. I could not say, the work was very nearly done.

Q. Was it three o'clock?

A. I think it was later.

Q. Was it four o'clock?

A. I should say four o'clock.

Q. You had the platform finished at that time?

A. Yes, sir, pretty nearly; they were done at six o'clock.

Q. You had not finished?

A. No, sir.

Q. (By the CHAIRMAN.) You say you have not known until to-night how much was charged for putting up the other seats?

A. No, sir; I never asked.

Q. (By Mr. O'BRIEN.) How were you to be remunerated for this work?

A. I do not know as I understand you.

Q. You say you made no contract with the city, and you did not know anything about what you were to receive?

A. I knew the price for building the seats in the first place was $300.

Q. (By the CHAIRMAN.) You did not know anything about it?

A. I knew the price asked was $67.50 for each side.

Q. Did you know what the contract with the city was?

A. No, sir.

Q. None of your men built the burying-ground seats?

A. No, sir. I think Mr. Paul's men built them.

Q. Do you work for Mr. Paul?

A. No, sir.

Q. When did you work for him?

A. I have done a number of jobs for him. I have worked for him by the day as much as 8 or 10 years.

Q. When did you last work for him?

A. I have done a job for him within the last few months.

Q. Have you been in the habit of doing jobs for him?

A. Yes, sir.

Q. Right along?

A. No, sir; I built a church out on Union Park street for him, and have not done anything for him since with the exception of that.

Q. (By Mr. O'BRIEN.) Did you understand that you were the contractor in this matter, and Mr. Paul was merely acting in a friendly way to assist you?

A. I supposed the contract was mine when Mr. Nugent asked me to figure on the job.

Q. And you went on to do the work?

A. Yes, sir.

Q. Do you pretend to say that Mr. Paul was merely acting as your friend to assist you in obtaining the amount of lumber you wanted?

A. Well, I supposed the contract was mine.

Q. (By the CHAIRMAN.) How did you understand that, when you did not know how much of this contract was yours?

A. I say, sir, I knew what was asked.

Q. It was not what was asked, but what the contract was.

A. I never asked Mr. Paul, but I supposed that was the price they gave.

Q. Is that the way you perform a contract?

A. That is the way I did this. This is, of course, a verbal contract.

Q. (By Mr. BRECK.) What made you think you had a contract? What reason had you to suppose that you had made a contract with the city?

A. Well, Mr. Nugent left word there with my men.

Q. Did you see any of the committee?

A. No, sir.

Q. They did not come to you?

A. Mr. Nugent came to see me, but did not see me.

Q. (By the CHAIRMAN.) He is a friend of yours, and called in that kind of a way?

A. Yes, sir.

Q. Why was it, if you had a contract with Mr. Paul's men to build this other portion of it, that you knew nothing about it?

A. Mr. Paul told me he was going to send his men up there. He said he thought I had got as much to do as I could finish.

Q. He was directing you, or you were directing him?

A. Well, that was our conversation.

Q. He was directing you, is that it?

A. Well, he was around there considerable when we were starting these seats, and after Wednesday or Thursday he was not there much.

Q. (By Mr. PAUL.) Did you come to my office and notify me that the committee wanted some seats built?

A. Yes, sir, I stated so.

Q. Did you ask me to make a sketch to show to the committee?

A. I did.

Q. Did I go to your place of business in Williams Market? Do you know by the knowledge of your men?

A. I was told so.

Q. Did you leave word for me to meet you at City Hall at one o'clock?

A. Yes, sir.

Q. Well, about this last contract; you were present when we went over on Franklin square. Did we, or did we not, make a price? Did you not say what you would do the labor for, and did not I say what the lumber would cost on these two rows of seats?

A. Yes, sir; $67.50 I think it was.

Q. (By the CHAIRMAN.) Do you mean to say that he was contractor for the burying-ground platform, Mr. Paul?

A. No; I mean to say that this was his job, and that I charged the use of the lumber to Mr. Hayford.

The CHAIRMAN. — He says he knew nothing about it until to-night, Mr. Paul.

Mr. PAUL. — Nothing about the amount, but I suppose —

The CHAIRMAN. — He had nothing at all to do with the burying-ground platform.

Mr. PAUL. — I was not home until that; I was engaged. I do not know whether I saw him before this fall or not. I was not at that place in any way. This thing was all done as you would ride out to Roxbury precisely; it was done in a hurry, and he was there. It would not be necessary to notify anybody. I told Mr. Hayford what they were going to do, — that they were going to telegraph.

Q. (By Mr. WOLCOTT.) Do you know how much of the additional $200 was to come to you, or what your share was to be?

A. Nothing more than with reference to these seats.

Q. I am trying to get at just what Mr. O'Brien is trying to get at. I want to know how much of the $200 you expected to receive.

A. I did not know how much of it was for the burying-ground platform; but I supposed that $67.50 was the price that they gave for the extra seats on each side of the street.

Q. You did not know anything about the price that was finally agreed upon?

A. When Mr. Paul said that he had got a telegram from Mr. Lee I did not know whether that was the price or not.

Q. So that the change of price in that case was made without consulting you?

A. It appears that the committee sent back word to have the work done for $200.

Q. (By the CHAIRMAN.) And you knew nothing about it?

A. No, sir.

Q. (By Mr. FLYNN.) Did you not hear Mr. Paul state that he had received a telegram from Mr. Lee, that they would give $200 for the work, and that he went and asked you about it, and you said, "Go on and do it"?

A. I did not hear that part of it.

Q. I understood you to say that you were there when the contract was made?

Mr. PAUL. — I do not think Mr. Hayford referred to the burying-ground at all.

Mr. HAYFORD. — I stated that I did not go up to the burying-ground.

Ald. O'BRIEN. — I believe there was a differenee of opinion as to where the contract was made. Mr. Paul said it was made at the square.

Mr. FLYNN. — Let us call in Mr. Lee to testify about that. I say it was made at the south burying-ground, up against the wall.

Mr. LEE. — I have a scrap of paper in my pocket on which I took a memorandum of the prices as they were made. In the first place, Mr. Flynn, Mr. Paul, and myself stood at the south end of Blackstone square, and Mr. Hayford stood there a few moments while we talked of what we wanted. Then Mr. Paul and Mr. Hayford went over to Franklin square and came back, and gave the prices for the work, which were $67.50 for each row, and two rows, to accommodate 900 people, for $134. Then Mr. Flynn, Mr. Paul, and myself went up to the burying-ground, and Mr. Paul advised what it would be best to do there in order to obtain the accommodation needed. He said he would provide the little platform that was wanted for 30 cents per running foot, which, as near as we could figure it, would make $90, making a total of $225. Mr. Flynn said, "If I recommend the committee to have this done for $200, you will do it?" Mr. Paul did not say whether he would or would not. Mr. Flynn and myself walked away. I think the very last words that Mr. Flynn said were, "If I will recommend to the committee to have this done for $200, you will do it?"

OLIVER L. SHAW. — *Sworn.*

Q. (By the CHAIRMAN.) Will you state all the knowledge that came to you in connection with these stands, and what you did?

A. Between 11 and 12 o'clock on Saturday previous to the 17th Mr. Frye, my assistant, reported to me that certain stands were going up on the line of this route, and that two stands were being erected on Blackstone and Franklin squares, being erected by Mr. Paul; that they had four rows of seats. This was written in the regular report.

Q. Did he put down Mr. Paul as the builder?

A. Yes, sir; he recorded Mr. Paul as the builder in his book. He said the stands were all right with the exception of some cleats which he required to be nailed on to the side of the stringers and back posts; he had seen Mr. Paul in regard to that, and he had said that he would have it done.

Q. He had seen Mr. Paul? Have you got his report?

A. That part of it so far as relates to the cleats was verbal. I am very positive that he stated that he had seen Mr. Paul in regard to that matter, and that Mr. Paul had stated that it was all right, and that he would have them put on. On receiving this information in regard to the stands I drew up an instrument[1] requiring my assistants to go out on the line of the route of the procession, and Mr. Sweat and Mr. Frye were detailed on the line above or south of Dover street, and Mr. Griffin and Mr. Rendall to that portion north of Dover street and around by the Common. This instruction was in writing, and gave them full powers in the premises; in fact all the power that I possessed.

Q. Have you a copy of that document?

A. I have, but it is in the office. I did not bring it here, because I did not expect to be called.

Q. A written order?

A. Yes, sir.

Q. Did they each get a copy of it?

A. Yes, sir; the two together. The one relating to Messrs. Sweat and Frye was written to Sweat and Frye, and handed to them. I have a copy of that down in the office. I do not know but it is too late to get it; perhaps there is no one there. After giving them these directions they started out on this route, and about 4 o'clock, — this being Saturday, we closed at 2 o'clock; my business detained me in the office, and I started out I think about 4 o'clock, and thought I would go up to the Common. I went up to the Common to look at the Common stand; I found that stand very unsatisfactory, — small standards, out of plumb and not braced.

Q. I do not wish to interrupt you, but if you will come to what you did at Blackstone square and Franklin square, and not what you did elsewhere, you will oblige the committee, for that is what we are to inquire immediately about.

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[1] [COPY.]

CITY OF BOSTON.

DEPARTMENT FOR THE SURVEY AND INSPECTION OF PUBLIC BUILDINGS.
CITY HALL, Sept. 15th, 1877.

To Messrs. SWEAT *and* FRYE, *Assistant Inspectors:* —

You are hereby directed to inspect all the stands and temporary structures that are or may be erected along the route of the procession of Sept. 17th, and see that each and all of said stands and temporary structures are constructed in a thoroughly safe manner, and you are authorized to forbid the use and the occupancy of those that, in your opinion, are in any way unsafe and dangerous.

(Signed) OLIVER L. SHAW,
Inspector of Buildings.

A. I think you will see that it is rather necessary for me to state this in order to show what I did afterward at Blackstone square.

Q. Well, go on.

A. After seeing that stand I pointed out the defects to the builder, and he promised me that these things should be remedied. I went home after going through the examination, and showing the builder the defects of the stand. The next day being Sunday, — I was deeply impressed with the situation of the stand on the Common, — I hitched up my horse about 10 o'clock, and drove out to Mr. Sweat's, my assistant.

Q. He lives where?

A. On Ruggles street, Roxbury. I live in the Third Section in East Boston.

Q. (By Mr. O'BRIEN.) Are Mr. Sweat and Mr. Frye practical builders?

A. Yes, sir; all of them. I drove out to Mr. Sweat's, knowing that he was going in the procession the next morning, with a view of sending him to Mr. Rendall's, who lives at Jamaica Plain, to get him into the Common side early next morning. On meeting Mr. Sweat at his house I asked him about the results of his investigations the day before, and he related to me what he and Mr. Frye had done, and in what condition they had found the stands. He reported to me the conditions of the stands on their line of the route, and stated that they had been over the whole line and found all the stands in good condition, with the exception of the Redpath stand, built by Mr. Paul, some 35 feet high on the back, I think, and holding some 1,400 people. With the exception of that stand and a stand on Shawmut avenue, he had found that the stands were all right. I took him in my buggy and went down to the Shawmut-avenue stand.

Q. (By the CHAIRMAN.) This was on Sunday?

A. This was on Sunday forenoon. I went down to the Shawmut-avenue stand, told him what I thought was necessary to make it right, and then I took him back to his house. He stated that the Redpath stand was in a condition that was not satisfactory to himself and Mr. Frye; that he required Mr. Paul to put on more additional braces.

Q. I do not like to interrupt you at all, but if you will come as quickly as you can to the Franklin-square stand, that is all we need to know about. We are to examine not what you did to all the stands, because we are only trying this particular stand, and want to know what you did in that particular place.

Mr. O'BRIEN. I suppose Mr. Shaw really wants to show how his time was occupied.

Mr. SHAW. I beg leave to say, Mr. Chairman, that I think it is due to me that I should show what I did.

The CHAIRMAN. But not on all of the stands?

Mr. SHAW. No, sir; not by any manner of means; it will be only two or three stands, and only those that have a bearing on this case.

The CHAIRMAN. Well, go on.

Mr. Shaw. The Redpath stand, he said, required certain braces, and Mr. Paul thought it was strong enough without, and they had quite an argument. He told me the size of the timber, and the distance apart, and I took a piece of paper and figured the transverse strength of the material, and was satisfied myself as to what it would carry. I told him, said I, "You have got to take the responsibility in this matter, for I have given it to you, and have your braces put on, any way. Do not yield." Then I despatched him to John D. Rendall with a request for him to be on the Common stand at 7 o'clock the next morning. Then I drove to Charlestown myself and met Mr. Griffin, who was engaged, as you understand, with Mr. Rendall, and told him I wanted him to go to the Common stand, Monday morning, at 7 o'clock. I stated to him the condition of the stand, and explained it to him. That arranged, I went home. About 5 o'clock, I think it was, — I cannot state the exact time because I did not look, — I received a note from the Chief of Police, which you have heard here, in relation to this stand. I took the note, read it, thanked the officer, told him to thank the Chief of Police for having given me the information, and told the officer, "I do not think it is necessary for me to put this in writing, but you can inform him to that effect." So the officer went away, and I took this note, and after thinking this matter over, I took the note and went down to Mr. Emery, making up my mind beforehand just how to treat the subject, having the whole work before me, what I had got to do the next morning. This procession was going to move at 11 o'clock, and here was a route of so many miles that had got to be taken care of. As you see, I had uncovered the route from Dover street down to the Common by taking my two men off and putting them on the Common stand. Mr. Emery lives in East Boston, and I made up my mind to give him this thing and to give him directions to start at 6 o'clock, so that he could be at Mr. Sweat's at 7, — knowing that Mr. Sweat was going in the procession, — so that he might have an opportunity, if he desired it, to go and see the stands, having such an instrument as I put in his hands, and having the responsibility I had given him. He says he did go as directed to Mr. Sweat. I also directed him, on leaving Mr. Sweat, to go to Mr. Frye, who had charge of these stands, to put the note in his hand and say to Mr. Frye that he was detailed to go with him to reëxamine these stands thoroughly, and to report to me at my office at half-past nine o'clock, Monday morning.

Q. (By the Chairman.) Which stands?

A. Those on Franklin and Blackstone squares. The first examination of them was made on Saturday, and Mr. Frye reported to me that they were all right with the exception of these cleats that have been referred to. There was so much with regard to these stands. Now I will continue, if you please, and if you will follow me through, you will see the course that I adopted. They received these instructions, and I started in the morning early, before 7 o'clock, and met my assistants on the Common. I found them there and found the builder was laying out for a large

number of chairs. I examined that stand all over the top in regard to the aisles in case of panic. I explained to my assistants fully what should be done to make it safe. Getting through these duties, I took my horse, — I saw that I had, as I thought, just about time enough to go up to the South End, desiring to see the Redpath stand, as they had reported to me the trouble that they had with Mr. Paul, and knowing it was a very large one. I started up Shawmut avenue, and going up I thought I might intercept them. I did so. When I got near to Canton street, just this side of Canton street, I met Mr. Frye and Mr. Emery. I drove right up to the sidewalk where they were. Mr. Emery first stepped up to the carriage and reported to me that the stands I had detailed him to examine, at Blackstone and Franklin squares, were all right, and were perfectly safe. Mr. Frye endorsed it by making his own statement afterward, that they were all right.

Q. Mr. Emery and Mr. Frye?

A. Yes, sir; that they were all right and perfectly satisfactory, and I took that report as final and conclusive in the matter.

Q. You did not go up there yourself?

A. I say I took that report as final and conclusive in the matter, from two such men as they were. I never inspected these stands myself. I did not think about these stands, and I had every reason in the world to suppose that they were perfectly safe. I started off and drove on.

Q. Beyond the stands?

A. Yes, sir.

Q. And passed them?

A. I did. I saw I had just 30 minutes. I had informed my men I would be at the office at half-past nine o'clock. I saw I had just 30 minutes to go up and look at the Redpath stand and get around, and I wanted to stop at the Common; I had that in view because my men had not got to work when I left the Common. The builder could not put the men on as I had instructed them to take a man apiece and have these cleats put on. My men were to see that this stand was all right. I had this circuit to make. As I went out I examined the Redpath stand, and happened to meet Mr. Paul 100 feet this side of the stand. I went on to the Redpath stand, or rather, under it, and examined the framework generally, so that I took that whole thing in. I examined that carefully so far as its framework was concerned. I did not go on the top of it at all, because Mr. Frye when he reported to me in the carriage, reported also that this stand was all right with the exception of putting on one or two braces which the men had gone to get. That ended I came down by the way of the Common, and saw that the men were at work, and that the work was progressing, and that the men were at the office at half-past nine o'clock. I opened the office so that any one could see me who wished, and after staying there a time I went upstairs and saw one or two gentlemen there. I had the route of these men uncovered as I told you. I started and went over this portion of their route until I had used the time up, but the streets were so full of people I could hardly get anywhere with a horse, and I finally went and put my horse up at the

American stable. Then I footed it up to the Common, and went around that stand and examined it. I saw the work was well advanced and felt that I had a sure thing there. My belief was that it would be completed in a short space of time, and my two men had two men with them following the thing right up; they commenced on the west and had got pretty well up on the other side. Then I went up Tremont street to the Clarendon Hotel. I had not been there but a few minutes when I heard that the stand on Blackstone square had fallen. Well, I repaired to the spot, and of course was in a bad frame of mind, as Alderman O'Brien will recollect. I saw him when he came. His little boy had been injured, and I went with him to the St. James Hotel to see him. I suppose that is as far as you want me to go in that matter as far as the stands are concerned. The fall of the stand ends it, I suppose, as far as that is concerned. Afterwards I had the reports of my assistants. I have them here and desire to read them.

Q. What are they about?

A. On this stand.

Q. After the accident?

A. No, before.

Q. A report to you?

A. Yes, sir; two reports they made into the office.

Q. (By Mr. FELT.) On Saturday?

A. No, sir.

Q. On Monday or on Tuesday?

A. These are their written reports.

Q. After the accident?

A. These cover the time after I gave them instructions in regard to the stands on Blackstone and Franklin squares.

Q. (By the CHAIRMAN.) You say that on Saturday they examined these two stands and said they were all right, with the exception of some things which they recommended. On Sunday you received notice from Chief Savage of the dangerous condition of these platforms?

A. Yes, sir.

Q. You went over to Charlestown?

A. Yes, sir.

Q. You detailed Mr. Emery and Mr. Frye; they met; you went up to the Common in the morning, and from the Common you went down to the South end, and at Canton street you met them, and they reported to you that the platform was all right?

A. Yes, sir.

Q. From there you went up to the Redpath stand erected by Mr. Paul, and then you came around again to your office at half-past nine. Do I understand that these two reports are reports which were made to you on Saturday or upon Monday morning?

A. This report was made to me on Tuesday morning as to what they did on Saturday afternoon, after starting out under my direction on Monday morning.

Q. (By Mr. FELT.) I understand these are sworn statements?

A. They are.

Q. In which the Inspectors state what they did?

A. They are.

Q. (By the CHAIRMAN.) They were made after the accident?

A. Yes, sir; they were made to me. The substance of the reports on Saturday was that they were all right with the exception of these cleats, and on Monday they reported that they were all right. This report is more in detail.

Q. Did they give these reports afterwards?

A. They report everything in writing. This is Mr. Frye's report: —

BOSTON, Sept. 18, 1877.

To OLIVER L. SHAW, *Inspector of Buildings:* —

SIR, — On Saturday morning my attention was directed to certain stands that were being erected by Mr. Joseph F. Paul, on Blackstone and Franklin squares. At the time of my visit these stands were nearly completed.

In my report I notified you that in my opinion they were all right, with the exception of the cleats that should have been nailed to the post under each stringer, and which I then and there required.

On Saturday, upon being commissioned and detailed with full powers, in company with Mr. Sweat, we inspected all the stands and temporary structures that were erected, or were in process of erection, along that portion of the route that was above Dover street.

On arriving at the stands on Blackstone and Franklin squares we found that the cleats that I had ordered had been put upon the posts, but were insufficiently nailed, and orders were given for additional nailing.

Upon a reinspection of the entire length of both stands we found them to be in good condition, with the exception of the above-mentioned nailing of the cleats.

On Monday morning Mr. Emery called at my residence, and handed me a communication that had been addressed to you by the Chief of Police, in which your attention was called to the condition of the stands on Blackstone and Franklin squares, and upon being informed of your orders to immediately make a thorough reëxamination of these stands, in company with Assistant Inspector Emery, I reinspected them at 8 o'clock that morning, and we were both satisfied as to their safety, and so reported to you on Washington street, near Canton, at 9 o'clock.

I was so well satisfied of their safety that I did not return to the premises until after the accident.

Soon after the fall of the stand, Mr. Paul's foreman, with workmen, and a load of material, came on the ground. The foreman consulted me with reference to securing the Franklin-square stand, and I objected to having anything done to it.

WM. FRYE,
Assistant Inspector.

Sworn to before me this 25th day of September, 1877.

OLIVER L. SHAW,
Justice of the Peace.

Q. (By Mr. O'BRIEN.) Are these Inspectors present?

A. Yes, sir. The next report will be Mr. Sweat's.

Witness read: —

BOSTON, Sept. 18, 1877.

To OLIVER L. SHAW, *Inspector of Buildings:* —

SIR, — I herewith submit a report of my inspections of the stands and temporary structures that were erected along that portion of the route of the procession south of Dover street.

On Saturday I received the written commission of detail, and, in company with Mr. Frye, proceeded in their examination.

I inspected the city stand on Blackstone square and on Franklin square, and found that the cleats were insufficiently nailed, and at that time I required them to be secured by additional nails.

I examined both stands their entire length, and saw no reason for making suggestions for additional security.

On Saturday I reported to you on Ruggles street, that, in company with Mr. Frye, I had examined all the stands and temporary structures on my portion of the route, and with the exception of the Redpath stand, on which I required additional braces to be put, and a stand on Shawmut avenue, I found them all in good condition.

THOMAS P. SWEAT,
Assistant Inspector.

Sworn to before me this 25th day of September, 1877.

OLIVER L. SHAW,
Justice of the Peace.

BOSTON, Sept. 18, 1877.

To OLIVER L. SHAW, *Inspector of Buildings:* —

SIR, — Upon personally receiving from you, at my residence, on Sunday, September 16th, the communication that had been received by you from the police, calling your attention to the condition of the stands on Blackstone and Franklin squares, early on Monday morning, in accordance with your instructions, I reported to Messrs. Sweat and Frye at their places of abode.

Mr. Sweat read a letter, and said the stands were all right.

I then proceeded to the residence of Mr. Frye, and gave him the letter with your instructions for him to immediately reinspect with me the stands on the above-mentioned squares.

In company with him, I inspected various stands along the route, requiring additional supports and braces in several of them.

We inspected the stands on Blackstone and Franklin squares, and on Washington street, near Canton street, at about 9 o'clock, I reported to you that they were all right, and perfectly safe.

WM. G. EMERY,
Assistant Inspector.

Sworn to before me September 25th, 1877.

OLIVER L. SHAW,
Justice of the Peace.

Q. (By Mr. FLYNN.) I would like to inquire who wrote these.

A. The clerk in the office, — Mr. Baker.

Q. At whose dictation?

A. The Inspectors sat down by his side and gave their own information.

Mr. GARGAN. — I suppose the Inspectors are here, and if they deny the reports are true they can be examined.

The CHAIRMAN. — One moment — are you counsel for this gentleman?

Mr. GARGAN. — I was acting —

Q. (By the CHAIRMAN to Mr. SHAW.) Did you write them?

A. No, sir.

Q. Did anybody write them for you?

A. No, sir.

Q. (By Mr. McGARAGLE.) I would like to ask if it is customary for Inspectors to make these reports?

A. We have similar reports in writing of all the doings and transactions of our office.

Q. (By the CHAIRMAN.) The Inspectors are here and they can be called. I do not presume they would swear to a statement which they did not have read to them.

A. I am sure I should be the last man to undertake to force anything upon my deputies.

Q. Were you the person who dictated these? Was there anything of that kind? Were you present?

A. I was present when they were written.

Q. Who wrote them?

A. Mr. Baker.

Q. He is a clerk in the office. He wrote them?

A. Yes, sir.

Q. At whose dictation?

A. I requested that they would give me a report in writing.

Q. At whose dictation did they write them?

A. At no one's dictation.

Q. Were you there when it was written?

A. Yes, sir.

Q. And who gave the substance of what was put in them?

A. They gave it themselves.

Q. Each one?

A. I think so.

The CHAIRMAN. — That is all. Perhaps some members of the committee want to ask you some questions.

Q. (By Mr. O'BRIEN.) You state in these statements, or these Inspectors state, that the platform was erected by Mr. Paul?

A. Yes, sir. Mr. Frye's report — his first report in his book, where it is printed in the usual form, with the street, number, and builder, etc. — came into the office filled out with Joseph F. Paul, builder.

Q. (By the CHAIRMAN.) Why was it you did not think it was worth while to go on and examine a stand to which special attention was called by the Chief of Police, although you passed it by to go to the Redpath stand?

A. Well, my answer to that would be, that is why I wanted to relate to you what occurred on the Common stand. I wanted the committee to see whether —

Q. I merely want to ask for information.

A. Well, the reason why: this stand had been reported to me three different times, by three different men, in whom I had the fullest confidence as to their ability and their judgment. They never, to my knowledge, have made a mistake in such a matter. On the 17th of June, a year ago, we had, I think we had, ten times as many seated people on stands, a great deal larger and higher, inspected by the same men, and not an accident occurred. I had no more question, gentlemen, when these stands on Washington street were reported to me, by Messrs. Frye and Emery, as being perfectly safe, than I have that I stand here at this moment,

or that they needed any attention. I am constantly receiving, every day, just such communications from the Chief of Police, or similar ones, and I leave them, as I am obliged to leave them, to my assistants. I have my assistants for that purpose.

Q. I simply ask why, you being an Inspector, having inspected the Common stand, and Redpath's stand, and your attention being especially called by the Chief of Police to this one, did not examine it, having to pass it right by?

A. One of the reasons would be that these stands were so small. They were only 7 feet high, and had only 4 tiers of seats; that is the way they were reported.

Q. But you say you passed them right by?

A. Certainly. I saw them, but I never inspected them. I am only too sorry that I did not; I am only too sorry that I did not have time to do it, but with the stand which I had impressed on my mind, as I laid in my bed and thought of the Common stand, which was to accommodate 3,000 people to be marched upon it like a body of soldiers, standing up as I saw it, I thought of something besides a little stand 7½ feet high, built up against an iron fence ;and all the other duties I had to perform that morning.

Q. Was that stand only 7½ feet high?

A. That is the height of this stand; only 7½ feet above the level ground.

Q. (By Mr. FLYNN.) Were you ever there on the ground yourself? Did you ever see these stands before they were occupied?

A. I did.

Q. You inspected them then?

A. No, sir; I never did.

Q. What were you doing on the ground?

A. I was not on the ground.

Q. I thought you said you saw them?

A. I did see them.

Q. Will you say you were never on the ground and looked at these stands?

A. I never inspected them.

Q. Did you see that stand on Franklin square?

A. Yes, sir.

Q. Did you see the stand on Blackstone square?

A. Yes, sir.

Q. When were you there? Why don't you state the time when you were there?

A. I will state to you the instance just as it occurred.

Q. State when you were there.

A. Upon the morning, the very morning when my assistants reported to me.

Q. What morning?

A. Monday morning.

Q. Why didn't you state that when you said you passed it by?

A. My intention was to state it.

Q. You never have mentioned it from the beginning. You

gave a detailed account of the whole thing, and you never gave it until it was forced out of you.

A. I was well aware that that question was going to be asked.

Q. Then you ought to have answered it.

A. I shall.

Mr. GARGAN. — I understand —

The CHAIRMAN. — Are you his counsel?

Mr. GARGAN. — I am.

The CHAIRMAN. — Well, will this committee allow counsel in an investigation?

Mr. GARGAN. — I suppose, Mr. Chairman —

The CHAIRMAN. — I simply ask if the committee will allow anybody here as counsel?

Mr. RICHARDSON. — If you ask us individually I have no objection.

Mr. O'BRIEN. — I have no objection.

Mr. BRECK. — I would like to know, Mr. Chairman, if there is any necessity for counsel. I do not consider that Mr. Shaw is on trial at all. We are merely investigating the Blackstone-square accident.

The CHAIRMAN. — Not at all; that is my point.

Mr. SHAW. — Well, I wish to state this just as it occurred. It will not take but a minute. It was an incident; and when I explain it there is not a gentleman on the committee but will appreciate it, and see it just as it was. I stated to you I met my assistants at 9 o'clock, and I had just 30 minutes to go around and touch these points and meet my appointment. When I left them I had no more intention of stopping at this stand than I have of going out there at this moment; not a particle. I accepted that report from my two assistants, as final and conclusive, in the matter of these low, small stands. But as I was driving by, going to the Redpath stand, I saw this stand. The street was wide, and I was in the middle of the street. As I was driving by, when I was about on an angle of 45 degrees from that stand, my eye caught that overhanging seat. I had no idea of stopping until I saw it. As quick as a flash, as my eye caught that seat, — I had never seen that before, — I thought to myself, there is something wrong. What is that? There is an overhanging seat. I had never seen it before. Every stand is built with a post right up straight and stops there. It struck me as something wrong. I hauled my horse up quick, sheered right up to the right, and just stepped out of my carriage to look at that seat just as it stood. When I did it I stepped just inside of the posts. To my friend Flynn, I will say I did just step inside the ground.

Q. You did not go across to the other one?

A. I did. I was going to tell you before I got through, only I want it as it was. I told you I never inspected those stands, and I never did, unless looking at them means inspecting them. If that is the way they are inspected they will tumble down. Inspection of that sort don't amount to anything. But my eye caught that, and it was as quick as that [snapping his finger]. As I say,

I stood my horse up quick, and I took a view of that in a moment, and I thought I took it all in. The question was, whether it would tip over, or whether it was strong enough to stand up. I made up my mind — quickly, of course — I made up my mind it would, and I think so now. I believe it will not tip over, and I have not changed my mind one particle. As quick as thought, I almost ran, — if I had not been a man who weighs 250 pounds I should, — I went across to the other square to take a look at the other stand in the same way. I have repeated that conversation to as many as three or four gentlemen after it transpired, and I could have those gentlemen repeat it here, just as I did at that time. That is all the inspection there was about it, and that is all the inspection I gave those stands. It was done as quickly as that.

Q. What did you run so fast for, Mr. Shaw?

A. I told you: the point I make is, for want of time.

Q. It looked dangerous, didn't it? It looked a little dangerous to you, and you wanted to see if the other was dangerous too?

A. No, sir; I did not know whether it was exactly like it or not. It seems here to-night that they were not. I wanted to see whether they were or not. I crossed there for that purpose.

Q. You found the one like the other?

A. So far as that point was concerned it was practically the same.

Q. All I wanted the committee to know was that you were there. I want the responsibility to rest just where it belongs.

A. Well, I was there. I had that in view, before I left this stand, to make this statement. I did not want to make it in connection with my report, to be considered as an inspection. There is my explanation, and that ought to be satisfactory.

Q. But you compelled your Inspectors to make a report to you? You were present when they made the reports, and dictated to Mr. Baker how they should be written.

A. No, I did not.

Q. Well, I understood the Inspectors to say substantially they are correct, but there was dictation from somebody?

A. There was no dictation about it.

The CHAIRMAN.—We have the Inspectors here; let them testify.

Mr. SHAW. — I think they will testify as to the truth of their reports. The question of time, as to the exact time, or something of that kind, they might have consulted me about, but there was no dictation. I leave that to the Inspectors to say if they put down anything in their reports which is not true.

Q. Have you made any record of your inspection in any book that you keep?

A. I do not keep any book.

Q. You compel the Inspectors to keep a record?

A. Why, they report to me in writing always, every day, on everything they go into. I think the system of my office is such that, while I have been in different offices of different departments in other cities, I have never seen anything better than that I have in mine. I think it is necessary. Gentlemen will see that Inspec-

tors should report in writing, or I should never know where they are. A man is sent out and comes into the office once a day.

Q. (By Mr. FAGAN.) Were these reports signed by the Inspectors just immediately after they were written, or as if they were written to-day and signed to-morrow?

A. About the same as that — yes, sir.

Q. (By the CHAIRMAN.) Had they these in their possession during that whole time?

A. No, sir.

Q. In whose possession were they?

A. I think they laid on Mr. Baker's desk; I could not be positive. I asked them to give me a report in writing of their stands. They did the same thing on the 17th of June; after they got through they reported on their stands.

Q. (By Mr. FAGAN.) Were these given to any one for consideration before they were signed by the Inspectors? For instance, was there any law adviser?

Mr. GARGAN. — Now, Mr. Chairman, I believe this is a public hearing; and, if Mr. Shaw is to be cross-examined, I merely ask —

The CHAIRMAN. — One moment. If there is any objection, I will ask the question that Mr. Fagan has asked, if you have submitted them for legal advice before they were signed?

Mr. SHAW. — No, sir; no, sir; not a bit of it. They never objected to giving me that report, and there was no one consulted in regard to it; not a particle. I would not allow such a thing for a moment; no, sir.

The CHAIRMAN. — That is a great deal better, Mr. Shaw, than to have any objection to it.

Mr. SHAW. — By George! I don't do any such thing as that. I consulted nobody and no lawyer until after these reports were made and handed to me.

Q. (By Mr. O'BRIEN.) Were similar reports made in relation to the stand on the Common, Mr. Shaw?

A. Yes, sir.

Q. (By the CHAIRMAN.) Was there a report in full on every stand on the line of the route subscribed and sworn to like these?

A. No, sir.

Q. These are the only stands on which there has been any affidavit?

A. Yes, sir; you see these refer to these stands.

Q. Have reports been made upon all stands similar to reports made upon these?

A. No, sir.

Q. These are the only ones?

A. These are the only ones. They reported upon the other stands.

Q. But they are not written in this kind of a way?

A. Well, these are written up because we expected they would go into the hands of the committee. They are written as we

would write anything that was to go into the hands of a committee. There is nothing forced there, Mr. Chairman.

The CHAIRMAN. — It cannot be if it is subscribed and sworn to of their own free will.

Mr. SHAW. — Before the hearing is closed I wish to hand something in.

WILLIAM FRYE. — *Sworn.*

Q. (By the CHAIRMAN.) You are an Assistant Inspector of Buildings?

A. I am.

Q. You have heard the statements made by Mr. Shaw. They are substantially correct, are they not?

A. Yes, sir.

Q. You inspected these stands on Blackstone square?

A. Yes, sir.

Q. You signed this affidavit?

A. I did.

Q. That is a correct statement of the whole affair?

A. Yes, sir.

Q. (By Mr. O'BRIEN.) What is your business, Mr. Frye?

A. Assistant Inspector.

Q. What is your regular business?

A. I am a mason.

Q. You state, in your return, that Mr. Paul was the builder of these stands. On what information did you make that statement?

A. I could not tell you. I came to a conclusion of that kind some way or other, I could not tell you how. In my conversation with Mr. Hayford in regard to my requisition on the stands, I asked him if he would make these changes that I required there, or whether I would have to see Mr. Paul; and he said he would make them.

Q. Did Mr. Hayford say that Mr. Paul was the builder of, or contractor for, these stands?

A. He might or might not; I do not know that I asked him. I had an idea in some way or other that Mr. Paul was to build them.

Q. (By Mr. PAUL.) Did it occur to you, Mr. Frye, that these platforms required any further braces or stays?

A. The want of braces was an oversight on the part of the Inspectors. Our attention was called to what we would not build ourselves, but up to Saturday our time was somewhat limited, and I put the whole attention upon the vertical crush. Not approving of supporting anything on nails entirely, I did the best I could to sustain them by putting a cleat underneath; but the want of a longitudinal support was apparently an oversight on every one of the stands built by people quite well-informed on the building of stands.

Q. (By Mr. FLYNN.) When did you see Mr. Shaw?

A. Monday morning.

Q Where did you see him?

A. I saw him with Mr. Emery, on Washington street, near Canton.

Q. Where did you see him afterwards?

A. I saw him afterwards in the office, in the evening, at 7 or 8 o'clock.

Q. Did you see him on Blackstone square?

A. No, sir.

Q. Have you had any conversation with him in relation to the erection of these stands? Has he ever told you that he inspected them?

A. No, sir.

Q. Do you know he was there?

A. I do not.

Q. Have you heard that he was there?

A. I have not until I heard him speak of it here himself.

Q. (By Mr. PAUL.) Did any one ever intimate to you directly or indirectly that I was the builder of these stands?

A. No, sir; I do not know how I came with the idea, but I had the idea that you were building them. Mr. Hayford did not say you were not building them. I do not know as I asked him directly. I cannot tell anything about why I reported that you were building them.

WILLIAM G. EMERY. — *Sworn.*

Q. (By the CHAIRMAN.) You are an Assistant Inspector of Buildings?

A. Yes, sir; I am a mason and builder.

Q. You inspected these stands?

A. I inspected them with Mr. Frye, Monday morning.

Q. The report which was read was substantially the report you made in relation to them?

A. Yes, sir.

Q. And the statement which Mr. Shaw has made is substantially what you did about it, and what directions he gave you?

A. Yes, sir.

Q. (By Mr. FLYNN.) I would like to ask you the same question that I asked Mr. Frye,— if you saw Mr. Shaw there?

A. No, sir; I met Mr. Shaw with Mr. Frye, as he has reported, on Washington street; that is the last time I saw Mr. Shaw.

THOMAS P. SWEAT. — *Sworn.*

Q. (By the CHAIRMAN.) You are an Assistant Inspector of Buildings?

A. Yes, sir.

Q. You have heard the statement of Mr. Shaw. Is it substantially as you would make it as regards the orders he gave you?

A. Yes, sir.

Q. This report of yours is a substantial statement of facts?

A. I do not know as I should want to say anything different from what is written.

Q. Had any one told you who built them?

A. No, sir.

Q. Did you make any inquiries?

A. No, sir. I assumed Mr. Paul was doing it from what I saw there.

Q. In whose company were you?

A. Mr. Frye's.

Q. (By Mr. FAGAN.) Were the stands finished when you were there?

A. No, sir.

Q. (By Mr. FELT.) Was this in your district?

A. No, sir; my district is farther to the South End; I was assigned there by the Inspector.

Q. What is your regular business?

A. Carpenter and builder.

Q. (By Mr. FAGAN.) The stands were not finished when you were there. What time were you there?

A. At 4 o'clock, Saturday afternoon.

Q. (By Mr. RICHARDSON.) Why didn't you see this defect? How did it happen that neither of you saw this very great defect?

A. I am unable to give any reason for not seeing it. I have heard a great deal of talk about it since.

Q. I only wanted to ask you if you could give any reason?

A. I have no reason, sir. I do not know why I should not have discovered it. I certainly should, if I had been there. There might not have been time to put them on.

Q. (By Mr. O'BRIEN.) You knew about this notice from the Chief of Police?

A. Mr. Emery came to my house with it. I being excused and having to march at 8 o'clock, it was sent to my house.

Q. Does it ever occur to you, when a notification of that kind is received, to ask the cause of it?

A. Oh, yes, quite often. If a man should come to me and say a building was unsafe, I should ask why. The notice of the Chief was without any statement of the case, and I knew other parties were going right down there.

Q. (By Mr. RICHARDSON.) When a man is sick he calls a physician to find out what ails him, don't he?

A. I suppose so; but they do not always tell.

Q. (By Mr. FELT.) It seems to be in testimony here that other carpenters were impressed with the fact that there was no strength there?

A. It is a very easy matter to see it after the accident has happened. I have heard a great many people, riding by in the horse-cars, say the stands were not safe.

Q. Yes; but Mr. Ripley has testified that he took his family off of it because it was not safe.

A. I should think Mr. Ripley would have had the kindness to have taken them all off.

Mr. RICHARDSON. He did what he could.

Mr. O'BRIEN. Well, in fact, one stand was cleared before the other fell, and it must have been cleared for a cause.

Mr. SWEAT. I did not hear of it until 3 o'clock in the afternoon, when I was down on Beacon street, in the line, marching.

Q. (By Mr. FLYNN.) I would like to ask you if you heard anything about the Chief Inspector going up there?

A. No, sir.

Q. You did not know he had been there?

A. No, sir; not until this evening.

Q. When you were giving your sworn testimony, did he intimate to you that he had been there to inspect the stands?

A. No, sir, not in any respect.

JAMES FAGAN. — *Sworn.*

Q. (By Mr. FLYNN.) I want him to testify whether he saw the Chief Inspector standing on the ground at Blackstone square?

Q. (By the CHAIRMAN.) Did you see the Inspector of Buildings at this place?

A. Yes, sir.

Q. At what time?

A. I could not tell you the exact time.

Q. It was in the morning?

A. Yes, sir.

Q. Where was it?

A. On Blackstone square.

Q. Was he walking around?

A. Yes, sir; I think he was at the back of the stand.

Q. Looking at the stand?

A. I was on the cars at the time.

Q. How far from the entrance?

A. I don't know. It wasn't very far. I don't remember exactly.

Q. (By Mr. GARGAN.) I don't understand that you saw Mr. Shaw passing around the stands on either square?

A. I see him standing at the back of the stand on Blackstone square.

Q. Did you see him make any inspection?

A. I could not tell what he was doing.

Q. (By Mr. RICHARDSON.) How far was he from the entrance?

A. I could not tell.

Q. How far from the corner?

A. I don't know.

Q. (By Mr. SHAW.) I should like to know the number of feet.

A. I could not tell you.

Q. I want to know the number of feet I was from the post.

Mr. RICHARDSON. That is, from the entrance.

WITNESS. I couldn't tell. I didn't take any particular notice, or measure it. I was riding on the car at the time.

Q. (By Ald. O'BRIEN.) Did you inspect those stands, Mr. Fagan?

A. No, sir.

Q. (By Mr. FELT.) Was he half way between the ends?
A. No, sir; I think on one end.
Q. Was it at the Newton or Brookline street end?
A. I think nearer the Newton street than to the other end.

OLIVER L. SHAW. — *Resumed.*

Q. (By Mr. JACKSON.) At what entrance did you enter the square?
A. On this end, as I was going up. I only stepped into the square. That I am willing to swear to anywhere.

A law question arising in this matter, I consulted the City Solicitor, and I will read the whole document: —

CITY HALL, Sept. 26, 1877.

HON. JOHN P. HEALY, *City Solicitor:* —

DEAR SIR, — A question has arisen under the provisions of Section 9 of Chapter 280, Acts of 1871, and under the provisions of Section 11 of Chapter 298, Acts of 1873, as to the legal right of the Inspector of Buildings to delegate Assistant Inspectors to inspect buildings or structures that may be reported at the office to be in an unsafe condition; and if in so doing does he fully comply with the requirements of the above-named sections and acts.

The Assistant Inspectors are commissioned officers of the Department, they are appointed under and in pursuance of the provisions of Section 5 of Chapter 280, and hold office for a term of two years.

The provision of Section 10 of said Chapter 280 authorizes the Inspector of Buildings to appoint an Assistant Inspector as deputy, to act with full powers in his absence.

Will you please favor me with an early reply, and oblige,

Yours respectfully,

OLIVER L. SHAW,
Inspector of Buildings.

I got the reply on the back of the note: —

In my opinion the Inspector of Buildings complies with provisions of the Statutes when he has the examination made by an Assistant Inspector in the case stated.

J. P. HEALY,
City Solicitor.

September 29, 1877.

ALDERMAN WILDER. — *Recalled.*

Q. (By the CHAIRMAN.) Mr. Paul stated that he notified you that Mr. Hayford wanted him to do some figuring for him?
A. I have not the slightest recollection of Mr. Paul's mentioning Mr. Hayford, or anybody else, in connection with that work.
Q. (By Mr. PAUL.) Do you remember where I first met you in City Hall?
A. It was at the door of the committee room, I should say.
Q. At the head of the stairs?
A. Yes, sir.

Q. Do you remember I made a proposition about building the stand on the Common?

A. Yes, sir. And I replied that I was not one of the committee.

Q. I stated that I was looking for a gentleman to be there with a proposition to build the stand on the Common. I called him by name, Mr. Hayford, and said I didn't know whether you knew him or not.

A. I didn't know such a man in the world.

Q. I told you I had a plan in my hand.

A. Yes, sir.

Q. You said, "Come in here."

A. Yes, sir.

Q. I went in, and stated that it was a plan for him.

A. I haven't the slightest recollection that you stated his name. I could not say that you did not mention it, but I have no recollection of it.

This closed the hearing.

CITY OF BOSTON.

City Document No. 83.

REPORT OF THE COMMITTEE ON ORDINANCES ON THE TRANSPORTATION AND STORAGE OF EXPLOSIVE COMPOUNDS.

In Board of Aldermen, Dec. 31, 1877.

In compliance with the order of City Council, approved June 5, 1877, directing "that the Committee on Ordinances be requested to report such ordinances as are necessary to give effect to the St. of 1877, c. 216, relating to the transportation and storage of explosive compounds within the city limits," your committee have the honor to report the ordinance hereto appended; and, as the question is one of importance, have added compilations of the English "Orders in Council," defining the several classes of explosive compounds, — Appendix A, — and the laws of the United States relating to the foreign transportation of explosive compounds, — Appendix B; also the act of 1877, under which we are now acting, — Appendix C.

The rules regulating the transportation of high explosives are in substance the same as those adopted by the Railroad Commissioners for use on the railroads in the State.

On examination of the St. of 1877, c. 216, it will be seen that gunpowder is expressly excepted from its operations.

The law and ordinances at present in force, viz., St. of 1833, c. 151; St. of 1837, c. 99; St. of 1841, c. 58; St. of 1850, c. 262; Gen. Sts., c. 49; Gen. Sts., c. 88; Ordinances of 1876; Fire Department, § 7, — leave the regulation of the sale, transportation, and storage of gunpowder in the "Board of Engineers."

And this authority is derived directly from the State, and is independent of City Council.

The only authority possessed by City Council is given by Gen. Sts., c. 88, and is very limited, and probably can be exercised only by abolishing the Board of Engineers.

Further, the Board of Engineers have, by statute, exclusive authority to license and regulate: —

1. Manufactories of chocolate.
2. The carrying or kindling of fires in the streets.
3. Sale and keeping of fireworks.
4. " " " " gunpowder.

And it is made the express duty of each and every engineer to inquire after and prosecute any person "who shall smoke, or have in his possession, any lighted pipe or cigar in any street, lane, or passage-way, or on any wharf or in any rope-walk, barn, or stable in said city."

At the time when the statutes conferring the above enumerated powers were passed, the "Board of Engineers" was the executive head of the Fire Department.

Under the existing ordinance by which that department was reorganized, the existence of the Board of Engineers, *as a Board*, was apparently continued only for the sake of preserving the statute powers granted to that Board [see Ordinances, 1876; Fire Department, § 7]; and, as a matter of fact, the Board but rarely meets, and then only to grant licenses for the keeping or transportation of gunpowder, fireworks, petroleum, and burning fluid.

In the opinion of your committee it would be better that the authority to make rules regulating the traffic in all dangerous articles should rest primarily with the City Council, with the power to delegate that authority to such boards or persons as it might by ordinance select.

Your committee, therefore, in addition to the ordinance they were directed to report, have added an order requesting the Mayor to petition the General Court for a law giving the City Council as full power for regulating the transportation, sale, and storage of gunpowder, fireworks, and the dangerous burning fluids, and of controlling the exercise of dangerous trades and the use of fire in the streets, as is given it by the St. of 1877, in regard to the explosive compounds therein referred to, and as is now entrusted to the Board of Engineers.

C. H. B. BRECK,
HUGH O'BRIEN,
CHOATE BURNHAM,
URIEL H. CROCKER,
ROBERT M. THOMPSON,
JAMES B. RICHARDSON,
ROGER WOLCOTT,
OSCAR B. MOWRY,

Committee on Ordinances.

Be it ordained by the Aldermen and Common Council of the City of Boston in City Council assembled, as follows: —

SECTION 1. By the words "explosive compound," as used in this ordinance, shall be understood gun-cotton, nitro-glycerine, or any compound of the same; any fulminate, and generally every substance, except gunpowder, intended to be used by exploding or igniting the same, to produce a force to propel missiles or to rend apart substances.

SECT. 2. No person, except on military duty in the public service of the United States, or of this Commonwealth, shall keep, have, or possess, in any building, place, vehicle, ship, or other vessel, within the limits of the city of Boston, any explosive compound in quantity exceeding one-fifth of a pound, unless thereunto licensed in the manner and form hereinafter set forth.

SECT. 3. Any person desiring to manufacture any explosive compound within the limits of the city of Boston shall make application in writing, for a license therefor, to the Board of Aldermen of said city, setting forth therein the exact location of the land and construction of the buildings where such manufacture is to be conducted, and a general description of the articles intended to be manufactured, the method of manufacturing, and the amount proposed to be manufactured. Such application shall be referred to the Board of Fire Commissioners and to the Chief of Police of said city, who shall cause an examination of the place or building described in such application, to be made by suitable persons appointed for that purpose by each of said departments.

If the report of said examiners be in favor of granting said application, the Board of Aldermen shall grant a public hearing to all remonstrants thereto, after public notice of said hearing has been given, for two consecutive weeks, in at least three daily newspapers published in said city.

The Board of Aldermen after such notice and hearing may, by a two-thirds vote, and with the approval of the Mayor, grant a license to said applicant to manufacture the explosive compound at the place specified, with such limitations as to the quantity to be manufactured, and the mode of storing, keeping, or transporting the same, as may be prescribed by ordinance, or which the Board of Aldermen may in each case see fit to impose.

SECT. 4. No manufactory of explosive compounds shall be erected or maintained within the territory now contained within the limits of Wards 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 16, 17, 18, and 19, of the city of Boston, according to the present boundaries of said wards.

Sect. 5. Any person desiring to keep for sale within said city any explosive compound may make application for a license therefor to the Board of Fire Commissioners of said city, or to such person or persons as may be charged with the duties now performed by said Board. The Board of Fire Commissioners shall cause to be made, by a suitable person, an examination of the place where such explosive compound is to be kept for sale, and if satisfied that such place conforms to the requirements of this ordinance, and is not otherwise objectionable, may grant a license so to keep such explosive compound.

Sect. 6. The following shall be the maximum amounts of the following class of explosive compounds which may be kept for sale within the said city, in any place within twenty feet of any building or construction regularly occupied any portion of the day or night: —

Of nitro-glycerine and all compounds thereof, and gun cotton, four ounces.

Of detonators or exploders for use with any explosive compound other than gunpowder, such number as contains in all one-half pound of the detonating compound employed.

Of any explosive compound, not otherwise provided for, such amount as the Board of Fire Commissioners may deem safe, not exceeding ten pounds.

In case the person so licensed to keep explosive compounds is also licensed to keep gunpowder in the same building, or within fifty yards of it, the maximum amount which he may keep of explosive compounds shall be one-half of the above-named amounts.

Sect. 7. Every person licensed to keep explosive compounds for sale shall provide a suitable place for the storage of such compounds, as follows: each class of articles specified in Section 6 shall be kept separate from every other class, by suitable divisions or partitions of brick-work. No compound of nitro-glycerine shall be kept in any receptacle constructed with any exposed iron or steel in the interior thereof.

Sect. 8. Licenses to establish magazines for the storage of explosive compounds, in quantities greater than those mentioned in Section 6, may be granted to manufacturers or dealers, in the manner and on the conditions prescribed in Sections 3 and 4 for the establishment of manufactories.

Sect. 9. No person shall keep explosive compounds for sale, as provided in Sections 5 and 6, in any building or storehouse within three hundred feet of any school-house, church, theatre, or hall, licensed for public assemblies. Nor within five hundred feet of the City Hall, State House, Court House, or Jail in said city.

No magazine, as provided in Section 8, shall be allowed within six hundred feet of any dwelling-house occupied by persons not engaged in the manufacture of said explosive, nor within one thousand five hundred feet of any of the buildings specified in the preceding lines of this section. All magazines to be surrounded by an earthen traverse ten feet thick at top and natural slope to bottom, and so high that a line drawn from the highest point of the explosive in store, and grazing to top of the parapet and wall pass above the highest of the surrounding houses.

SECT. 10. The transportation of explosive compounds in and over any highway, street, or way used by the public, not including any steam railway, within said city, shall be allowed only on the following conditions: —

a. That nitro-glycerine, in any of its forms, shall be in a congealed state, and the packages in which said nitro-glycerine is contained shall during transportation be kept constantly packed in ice, and in the charge of a competent agent furnished by the forwarder, who shall, during the time such nitro-glycerine is being transported, travel in the vehicle in which the explosive is carried.

b. That all dry nitro-glycerine compounds shall be packed in wooden cases holding not more than one hundred pounds of such explosive, the explosive compound to be packed in dry sawdust when in bulk to the depth of at least three inches on all sides between such explosive and the inside surface of the case, and when in cartridges, each cartridge shall be surrounded on all sides and all interstices between such cartridges, and a space of at least one inch between the outside of each cartridge and the inside surface of the case shall be filled with such sawdust.

c. That all gun-cotton shall be pulverized and in a compressed form and a moist state.

d. That all explosives of the fulminate class shall be wet and contained in wooden water-tight kegs, which shall be packed in sawdust in wooden packages.

e. That all explosives of the nitrate-mixture class and chlorate-mixture class shall be subject to the same rules and regulations as are now in force or may hereafter be prescribed for the transportation of gunpowder.

f. That all packages containing explosive compounds shall be plainly marked on at least three sides with the name of its contents, and the words "Explosive — Dangerous" so as to be readily seen by those who are to handle them. The name and address of the manufacturer and forwarder shall also be plainly marked thereon.

g. No detonating or percussion fuses, caps, or primers,

or articles liable to cause fire or explosion, shall be packed in the case or barrel containing any explosive compound, nor carried in or upon any vehicle in which said compound is being transported.

h. That not more than one case or barrel shall be transported in any vehicle, unless the said vehicle has been suitably prepared by lining the same with wood, felting, tarpaulin, oiled cloth, or other material, exclusive of iron or steel, and is fitted with a close cover of the same. No matches, acids, petroleum, or other hazardous articles shall be carried in the same vehicle with explosive compounds, and not over one hundred pounds of such explosive compounds shall be carried in one vehicle.

i. No two vehicles containing explosive compounds shall be allowed to approach one another within one thousand yards, unless in charge of a qualified inspector detailed by the Fire Commissioners for that duty. Such inspector shall be detailed upon written application, and shall be paid for his services five dollars for each day or portion thereof, by the person transporting such explosive compound.

Sect. 11. The following officers and each of them may at any time enter the building or premises of any person or persons licensed to sell explosive compounds, to examine and ascertain if the laws, rules, and regulations relating thereto are strictly observed, viz., the members of the Board of Fire Commissioners, the Chief Engineer, and the Assistant Engineers of the Fire Department, the Chief of Police, the Deputy Chief, the captains, lieutenants and sergeants of police, and any other person duly empowered to make a special search of any particular building or buildings by written instructions signed by either of the Board of Fire Commissioners, by the Chief or Deputy Chief of Police, or by his Honor the Mayor. Provided, however, that all such written authorizations shall be recorded in the department by which they were granted, and shall not be in force for over forty-eight hours.

Any person deeming himself aggrieved by unnecessary and repeated examinations may apply for relief to the City Council, who shall forthwith examine into the alleged injury, and grant suitable relief, if it be deemed necessary.

Sect. 12. Every license granted in accordance with this ordinance shall be upon condition that the Board of Aldermen may suspend or revoke the same, with or without cause, at any time. Any violation of the terms of the license by the person licensed shall work an immediate revocation of the same.

Sect. 13. Every person guilty of a breach of any of the

above ordinances shall be liable to a penalty of not less than one dollar, nor more than fifty dollars. Prosecutions of all breaches of this ordinance shall be made by the police department in the manner prescribed by law; and all fines and penalties so collected shall be paid into the charitable fund of said department, as provided in Sect. 12 of police ordinance as reëstablished in 1876.

Ordered, That the Mayor be, and he hereby is, requested to petition the General Court for the passage of an act giving the City Council full powers for regulating the transportation, sale, and storage of gunpowder, fireworks, and the dangerous burning fluids, and of controlling the exercise of dangerous trades, and the use of fire in the streets.

APPENDIX.

APPENDIX A.

Explosive Compounds as Classified by Orders in Council, 1875

Class No. 1. — Gunpowder.

Class No. 2. — Nitrate-Mixture Class.

The term "nitrate-mixture" means any preparation other than gunpowder, ordinarily so called, formed by the mechanical mixture of a nitrate with any form of carbon, or with any carbonaceous substance not possessed of explosive properties, whether sulphur be or be not added to such preparation, and whether such preparation be or be not mechanically mixed with any other non-explosive substance.

The nitrate-mixture class comprises such explosives as pyrolithe, etc., and any preparation coming within the above definition.

Class No. 3. — Nitro-Compound Class.

The term "nitro-compound" means any chemical compound possessed of explosive properties, or capable of combining with metals to form an explosive compound, which is produced by the chemical action of nitric acid (whether mixed or not with sulphuric acid), or of a nitrate mixed with sulphuric acid upon any carbonaceous substance, whether such compound is mechanically mixed with other substance or not.

This class has two divisions, the first comprising nitro-glycerine, etc., and any chemical compound or mechanically mixed preparation which consists either wholly or partly of nitro-glycerine, or of some other liquid nitro-compound.

The second division comprises gun-cotton, etc., and any nitro-compound as before defined, which is not comprised in the first division.

Class No. 4. — Chlorate-Mixture Class.

The term "chlorate-mixture" means any explosive containing a chlorate. This class includes several specified kinds of blasting powder.

Class No. 5. — Fulminate Class.

The term "fulminate" means any chemical compound or mechanical mixture, whether included in the foregoing classes or not, which, from its great susceptibility to detonation, is suitable for employment in percussion caps, or from its sensibility to explosion, and its great instability (that is to say, readiness to undergo decomposition from very slight-exciting causes), is especially dangerous.

This class consists of two divisions. The first division comprises such compounds as the fulminates of silver and of mercury, and preparations of these substances, such as are used in percussion caps; and any preparation consisting of a mixture of a chlorate with phosphorus, or certain descriptions of phosphorous compounds, with or without the addition of carbonaceous matter, and any preparation consisting of a mixture of a chlorate with sulphur, or with a sulphuret, with or without carbonaceous matter.

The second division comprises such substances as the chloride and the iodide of nitrogen, fulminating gold and silver, diazobenzol, and the nitrate of diazobenzol.

Class 6. — Ammunition Class.

The term "ammunition" means an explosive of any of the foregoing classes when enclosed in any case or contrivance, or otherwise adapted or prepared so as to form a cartridge or charge for small arms, cannon, or any other weapon, or for blasting, or to form any safety or other fuse for blasting or for shells, or to form any tube for firing explosives, or to form a percussion cap, a detonator, a fog-signal, a shell, a torpedo, a war rocket, or other contrivance other than a firework.

The term "percussion cap" does not include a detonator. The term "detonator" means a capsule or case which is of such strength and construction, and contains an explosive of the fulminate explosive class in such quantity, that the explosion of one capsule or case will communicate the explosion to other like capsules or cases.

APPENDIX B.

Laws of the United States.

General Statutes.

Section 4278. It shall not be lawful to transport, carry or convey, ship, deliver on board, or cause to be delivered on board, the substance or article known or designated as nitro-glycerine, or glynoin oil, nitroleum or blasting oil, or nitrated oil, or powder mixed with any such oil, or fibre saturated with any such article or substance, upon or in any vessel or vehicle used or employed in

transporting passengers by land or water between a place in any foreign country and a place within the limits of any state, territory or district of the United States, or between a place in one state, territory or district of the United States, and a place in any other state, territory, or district thereof.

Sect. 4279. It shall not be lawful to ship, send or forward any quantity of the substances or articles named in the preceding section, or to transport, convey or carry the same by a vessel or vehicle of any description, upon land or water, between a place in a foreign country and a place within the United States, or between a place in one state, territory or district of the United States, and a place in any other state, territory or district thereof, unless the same shall be securely inclosed, deposited or packed in a metallic vessel surrounded by plaster of Paris, or other material that will be non-explosive when saturated with such oil or substance, and separate from all other substances, and the outside of the package containing the same be marked, printed or labelled in a conspicuous manner with the words "nitro-glycerine, dangerous."

Sect. 4280. The two preceding sections shall not be so construed as to prevent any state, territory, district, city or town within the United States from regulating or from prohibiting the traffic in or transportation of those substances, between persons or places lying or being within their respective territorial limits, or from prohibiting the introduction thereof into such limits for sale, use, or consumption therein.

Sect. 5353. Every person who knowingly transports or delivers or causes to be delivered nitro-glycerine, nitroleum or blasting oil, or nitrated oil, or powder mixed with any such oil, or fibre saturated with any such substance or article, on board any vehicle or vessel whatever, employed in conveying passengers by land or water between any place in a foreign country and any place within the United States, or between a place in one state, territory or district of the United States and a place in any other state, territory or district thereof, shall be punished by a fine of not less than one thousand dollars nor more than ten thousand dollars, one-half to the use of the informer.

Sect. 5355. Every person who knowingly ships, sends or forwards any quantity of the articles mentioned in Section 5353, or who transports the same by any mode of conveyance upon land or water, between any of the places specified in that section, unless such articles be securely inclosed, deposited or packed in a metallic vessel, surrounded by plaster of Paris, or other non-explosive material when saturated with such oil, and separated from all other substances, and the outside of the package be marked, printed or labelled in a conspicuous manner with the words "nitro-glycerine, dangerous," shall be punished by a fine of not less than one thousand dollars nor more than five thousand dollars, one-half to the use of the informer.

Gunpowder.

Sect. 4288. Any person shipping oil of vitriol, unslaked lime, inflammable matches, or gunpowder, in a vessel taking cargo for

divers persons on freight, without delivering at the time of shipment a note in writing expressing the nature and character of such merchandise to the master, mate, officer, or person in charge of the lading of the vessel, shall be liable to the United States in a penalty of one thousand dollars. But this section shall not apply to any vessel of any description whatsoever used in rivers or inland navigation.

SECT. 4475. All gunpowder, nitro-glycerine, camphene, naphtha, benzine, benzole, coal-oil, crude or refined petroleum, oil of vitriol, nitric or other chemical acids, oil or spirits of turpentine, friction-matches, and all other articles of like character, when packed or put up for shipment, shall be securely packed and put up separately from each other, and from all other articles; and the package, box, cask, or other vessel containing the same, shall be distinctly marked on the outside with the name or description of the article contained therein.

SECT. 4476. Every person who packs or puts up, or causes to be packed or put up, for shipment, any gunpowder, nitro-glycerine, camphene, naphtha, benzine, benzole, crude or refined petroleum, oil of vitriol, nitric or other chemical acids, oil or spirits of turpentine, friction-matches, or other articles of like character otherwise than as directed by the preceding section, or who knowingly ships or attempts to ship the same, or delivers the same to any such vessel as stores, unless duly packed and marked, shall be deemed guilty of a misdemeanor, etc.

SECT. 4472. "No loose hay, ... nitro-glycerine, or like dangerous articles, shall be carried as freight or used as stores on any steamer carrying passengers, ... nor shall gunpowder be carried on any such vessel except under special license." . . . .

SECT. 4422. "Upon the application of any master or owner of any steamboat, employed in the carriage of passengers, for a license to carry gunpowder, the local inspectors shall examine such vessel; and if they find that she is provided with a chest or safe composed of metal, or entirely lined and sheathed therewith, or if the vessel has one or more compartments thoroughly lined and sheathed with metal, at a secure distance from any fire, they may grant a certificate to that effect, authorizing such vessel to carry as freight, within such chest, safe, or compartment, the article of gunpowder.

SECTS. 4423, 4, relate to giving a certificate, which shall be put in a conspicuous place, and the penalty is one hundred dollars for each offence.

APPENDIX C.

Chapter 216.

AN ACT *in regard to the manufacture, storage, use, transportation and sale of explosive compounds.*

Be it enacted by the Senate and House of Representatives, in General Court assembled, and by the authority of the same, as follows: —

Section 1. No person, except on military duty in the public service of the United States, or of this Commonwealth, shall keep, have, or possess, in any building, place, vehicle, ship, or other vessel, within one rod of a dwelling-house in any city or town, any explosive compound in quantity exceeding one-fifth of a pound, in any way or manner prohibited by this act, or by any ordinance or by-law which may be made in accordance with Section 2 of this act.

Sect. 2. The city council of any city may make ordinances necessary for the protection of life and property, in regard to the keeping, storage, use, manufacture, or sale of explosive compounds, and may regulate the transportation thereof through the streets or highways of such city, and affix penalties not exceeding fifty dollars for each offence. Towns may make like by-laws for the same purpose, to be approved in the manner prescribed in Section 14 of Chapter 18 of the General Statutes, and affix penalties not exceeding twenty dollars for each offence: *provided*, such by-laws and ordinances shall not prohibit the transportation of explosive compounds from one place to another, nor be otherwise repugnant to the provisions of this act and the rules made thereunder by the railroad commissioners.

Sect. 3. The mayor and aldermen of any city, and the selectmen of any town, may license, upon such terms as may be prescribed in the ordinances or by-laws mentioned in the preceding section, the keeping, storage, transportation, use, manufacture, or sale of explosive compounds within the limits of the city or town.

Sect. 4. No railroad corporation, street-railway company, steamboat company, or other association, copartnership, persons or person, engaged in the transportation of passengers within this Commonwealth, shall knowingly transport between persons or places within the territorial limits of this Commonwealth, or transport into such limits for sale, storage or use therein, any explosive compound in quantities exceeding the amounts hereinafter provided for, in any vehicle containing passengers, or in any vehicle attached to any railroad train or vehicle containing passengers; nor in any case unless the said explosive compounds be plainly and legibly marked with the names of such compounds, and the words "explosive — dangerous." It shall be the duty of the board of railroad commissioners, from time to time, to make rules fixing the maximum amounts of various explosive compounds which may be so carried in any public vehicle, or in a railroad train containing

passengers, or in a vehicle attached to such train; and until such rules are made by said board, no explosive compound shall be so carried. The said rules shall also define the method of packing such compounds to insure the greatest safety, and shall prescribe how the same shall be carried as freight on railroads, steamboats, and by common carriers. Said rules, subscribed by said railroad commissioners, shall be published for the period of four weeks in daily newspapers published in the cities of Boston, Worcester, and Springfield; and a copy of said rules, certified by either of said board, and a like certificate of the fact of their due publication, shall, in all cases, be legal and conclusive proof of said rules, and of the proper publication thereof.

No person shall deliver for transportation to any railroad corporation, street railway company, or other association, copartnership, persons or person, engaged in the transportation of passengers within this Commonwealth, or take or place upon or in any car, boat, or other vehicle of any such corporation, company, association, copartnership, or person, with intent that the same shall be carried or transported on such car, boat, or other vehicle, any explosive compound mentioned in this act, unless the same is packed and marked as herein provided, and notice of the dangerous nature thereof is expressly given to the agent, servant, or person to whom it is delivered, or to the agent, servant, or person having at the time the management and control of the car, boat, or other vehicle in or upon which the same is to be carried or transported. And any common carrier may decline to receive or transport any such explosive compound in any manner whatever.

SECT. 6. Whoever knowingly violates, or knowingly causes or permits the violation of any provision of the two preceding sections, or knowingly transports, or causes, or permits the transportation of any explosive compound, in any manner other than in conformity with the rules made by the Board of Railroad Commissioners, shall be punished by a fine not less than fifty dollars nor more than five thousand dollars, or by imprisonment in the State prison not exceeding five years.

SECT. 7. Upon complaint made under oath to a trial justice, or police, district or municipal court, that the complainant has probable cause to believe, and does believe, that an explosive compound is had, kept, or to be found in any city or town within the jurisdiction of such justice or court, contrary to law, a warrant may issue direct to the sheriff of the county or his deputy, or to any constable of such city or town, commanding him to enter any building, vehicle, ship or other vessel specified in the warrant, and there make diligent search for and seize such explosive compound, and make return of his doings to such justice or court forthwith.

SECT. 8. Any explosive compound had, kept, or transported contrary to the provisions of this act, and seized under the preceding section, may be adjudged forfeit, after due notice and hearing, and may be ordered to be destroyed in such manner as the court or magistrate may direct.

SECT. 9. Any person duly authorized by the ordinances of any city, or the by-laws of any town, may enter the building or prem-

ises of any person or persons licensed to sell explosive compounds, to examine and ascertain if the laws, rules and regulations relating thereto are strictly observed; and on an alarm of fire may cause the explosive compounds there deposited to be removed or destroyed, as the case may require.

Sect. 10. Any person who shall suffer injury by the explosion of any explosive compound while the same is being kept or transported contrary to the provisions of this act, or the ordinances, rules, or by-laws made in conformity to it, may recover damages for the injury thus sustained, in an action of tort against the parties so violating the provisions of this act, or the ordinances, rules or by-laws made in conformity herewith.

Sect. 11. The powers, or any of them, conferred on the city council of any city by Section 2 of this act may be exercised in the city of Boston, if the city council of said city shall so determine, by the board of fire commissioners, or any other board to which said city may, from time to time, by ordinance delegate the same.

Sect. 12. By the words "explosive compound," as used in this act, shall be understood either gun-cotton, nitro-glycerine, or any compound of the same; any fulminate, or generally any substance intended to be used by exploding or igniting the same, to produce a force to propel missiles or to rend apart substances, except gunpowder.

Sect. 13. Chapter 6 of the acts of the year eighteen hundred and seventy-one, and all acts and parts of acts inconsistent herewith, are hereby repealed; but such repeal shall not affect any prosecutions or suits now begun, nor prevent the institution of any suit, prosecution or proceedings to enforce penalties and liabilities already incurred under existing laws.

[Approved May 11, 1877.]

CITY OF BOSTON.

City Document No. 84.

REQUEST FOR AN ADDITIONAL APPROPRIATION FOR COMMON AND SQUARES.

In Common Council, Oct. 18, 1877.

The Joint Standing Committee on Common and Public Grounds respectfully represent that an additional appropriation will be required to cover the expenses of the remainder of the financial year.

The expenses from the beginning of the present financial year up to Oct. 15 are shown by the following complete statement: —

Schedule of Bills and Pay-Rolls charged to the account of Common and Public Grounds, May 1 to October 15, 1877, inclusive.

Date of Bill.			
	Amount of pay-roll,		$2,415 42
Dec., 1876, Jan. and Feb., 1877.	James F. Marston, carpenters' labor and stock,		397 75
	Cochituate Water Rates, use of water, Jan. 1, 1877, to Jan. 1, 1878,		335 00
1877.			
April 23.	Galvin Brothers, trees and plants,		275 00
20.	John Galvin, services, $183.00; tickets for workmen, $7.50; freight, $4.38,		194 88
Feb., Mar., and April.	Geo. T. McLauthlin & Co., repairing fence and elm tree,		98 16
March 15.	H. D. Parker, refreshments, Clark,	$1 80	
24.	" " refreshments, Clark, Galvin,	2 65	
29.	H. D. Parker, refreshments, Pope, Day, Howes, Galvin,	5 80	
April 3.	H. D. Parker, refreshments, Clark, Robinson,	2 00	
5.	H. D. Parker, refreshments, Clark, Slade, and Hiscock,	5 25	
7.	H. D. Parker, refreshments, Clark, Dee, Galvin, Clapp,	15 10	
10.	H. D. Parker, refreshments, Clark, Robinson,	3 90	
	Carried forward,	$36 50	$3,716 21

		Brought forward,	$36 50	$3,716 21	
April	13.	H. D. Parker, refreshments, Clark, Thompson, Talbot, Day, Harris, Perham,	16 70		
	14.	H. D. Parker, refreshments, Galvin, Pope, Dee,	7 10		
				60 30	
	20.	George Coyle, manure and team work,		53 50	
	10.	Rockwell & Churchill, order and permit-books, pay-rolls, etc.,		27 96	
	20.	N. Butters, broom stuff,		17 00	
March	28.	J. P. Barnard, carriage, Pope and Howes,		8 00	
April	9.	S. M. Grant, corn and meal,		7 92	
	17.	Lewis S. Davenport, removing and storing covering of fountain,		3 00	
March	26.	Joseph W. Ripley, binding "permits for stands,"		1 00	
		Amount of *May Draft,*			3,894 89
		Amount of pay-roll,		3,183 38	
April	20.	Owen Nawn, manure, gravel, loam, sods, and team work,		1,622 50	
May	11.	Stephen Connelly, extra work, sewer on Common,		34 25	
	20.	Owen Nawn, earth, loam, gravel, manure, etc., etc., and team work,		2,623 00	
April 25, May 19 and 21.		Galvin Brothers, plants and trees,		1,337 50	
May	20.	Hugh Nawn, sods,		1,045 34	
April	18.	Fred W. Kelsey, plants and trees,		991 00	
May	19.	H. K. Parsons, red gravel,		853 00	
	15.	A. J. Tuttle, sprinkling Charles st, Boylston to Beacon st., 2 months,		250 00	
	20.	John Galvin, services, $183.00; freight, $30.60; 2 loads peat, $6.00,		219 60	
	20.	Benj. T. Wells, trees,		132 25	
	15.	John Deegan, bird boxes and carting,		116 50	
April	20.	H. D. Parker, refreshments, Dee, Flynn, Galvin,	$7 15		
	21.	H. D. Parker, refreshments, Clark, Slade, and Galvin,	6 60		
	23.	H. D. Parker, refreshments, Clark, Hiscock, Pope, Galvin,	13 40		
	22.	H. D. Parker, refreshments, Dee, Hiscock, Galvin,	10 25		
	23.	H. D. Parker, refreshments, Clark,	1 30		
	25.	H. D. Parker, refreshments, Robinson, Pope, Galvin,	12 70		
	26.	H. D. Parker, refreshments, Clark, Pope, Howes, Hiscock, Dee, Galvin,	27 65		
May	2.	H. D. Parker, refreshments, Clark, Pope, Hiscock, Dee, Galvin,	20 25		
	3.	H. D. Parker, refreshments, Howes, Hiscock,	2 70		
	3.	H. D. Parker, refreshments, Hiscock, Galvin,	5 90		
		Carried forward,	$107 90	$12,408 32	$3,894 89

		Brought forward,	$107 90	$12,408 32	$3,894 89
May	4.	H. D. Parker, refreshments, Pope, Dee, Galvin,	5 65		
	5.	H. D. Parker, refreshments, Pope, Dee, Hiscock, Galvin,	12 80		
	10.	H. D. Parker, refreshments, Clark, Hiscock, and Robinson,	5 45		
			——	131 80	
Feb. to May.		George T. McLauthlin & Co., repairing fences,		95 21	
		Amount of pay-roll of discharged men,		4,361 46	
Apl.		Wm. McKenney, trees,		48 00	
May	23.	Samuel Hatch & Co., plants,		81 85	
April	20.	J. E. Maynard, carriage, Galvin,	$2 00		
	21.	J. E. Maynard, carriage, Hiscock, Howes, Galvin,	8 00		
	23.	J. E. Maynard, carriage, Dee, Pope, Howes,	3 00		
	24.	J. E. Maynard, carriage, Hiscock, Pope, Galvin,	5 00		
	25.	J. E. Maynard, carriage, Howes, Pope, Galvin,	10 00		
May	3.	J. E. Maynard, carriage, Howes, Hiscock, Pope,	8 00		
	5.	J. E. Maynard, carriage, Howes, Dee, Pope,	8 00		
			——	44 00	
	20.	Michael Coffee, trees,		44 00	
	23.	Chelmsford Foundry Co., fence for Common,		39 00	
	20.	J. Lamson, trees,		26 50	
April.		J. L. Fairbanks & Co., books and stationery,		25 20	
May	20.	Harper & Billings, trees,		15 75	
April / May	18. / 5.	S. M. Grant, corn, oats, and meal,		12 52	
April	30.	R. M. Pulsifer & Co., advertising,		11 25	
	30.	Journal Newspaper Co., advertising,		8 50	
	30.	R. Worthington & Co., "		7 00	
May	10.	H. T. Johnson & Co., books and stationery,		6 67	
	20.	M. Ward, trees,		5 00	
	4.	Lockwood, Lumb & Co., plumber's work and stock,		4 05	
	4.	J. P. Barnard, carriage, Howes, Pope,		4 00	
		Amount of *June Draft,*			17,380 08
		Amount of pay-roll,		3,155 26	
		Amount of pay-roll, discharged men,		5,219 43	
May 22 to June 16.		Galvin Brothers, plants,		4,412 85	
	20.	H. K. Parsons, red gravel,		2,685 00	
	20.	O. Nawn, binding gravel, loam, and team work,		1,122 25	
	20.	Hugh Nawn, sods,		685 11	
	20.	John Reardon, on account of contract for care of sundry squares,		600 00	
Jan.	1.	Metropolitan Railroad Company, manure 1 year, 112 horses, at $5.00,		560 00	
June	14.	D. A. Berry, seats, tree-guards and painting same,		405 95	
		Carried forward,		$18,845 85	$21,274 97

		Brought forward,		$18,845 85	$21,274 97
July	1.	Peter Callahan, on account of contract for care of East Boston squares,		400 00	
May 26 to June	6.	Samuel Hatch & Co., plants,		341 90	
	7.	Thomas Arey, trees,		218 50	
	23.	John Galvin, services, $184.00; tickets for workmen, $7.50,		191 50	
	21.	George J. Coyle, manure and team work,		173 00	
May and	7. 31.	Geo. T. McLauthlin & Co., repairing fences,		128 00	
June	15.	A. J. Tuttle, sprinkling Charles street, Boylston to Beacon street,		125 00	
	4.	The Hills Archimedean Lawn Mower Co., lawn mowers,		125 00	
April and May.		James F. Marston, carpenters' labor and stock,		117 10	
June	8.	Sisters of the Good Shepherd, plants,		110 00	
Feb. to June.		Francis Richards, painting and stock,		95 63	
May	15.	H. D. Parker, refreshments, Clark, Howes, Dee, Galvin,	$7 85		
	16.	H. D. Parker, refreshments, Dee, Galvin,	2 45		
	17.	H. D. Parker, refreshments, Clark, Hiscock, Dee, Galvin, Clapp,	9 05		
	21.	H. D. Parker, refreshments, Clark, Pope, Dee, Galvin,	7 40		
	25.	H. D. Parker, refreshments, Clark, Thompson, Dee, Galvin, Hiscock,	10 90		
	28.	H. D. Parker, refreshments, Pope, Dee, Galvin, Howes,	7 40		
June	7.	H. D. Parker, refreshments, Pope, Dee, Hiscock, Howes,	12 00		
	13.	H. D. Parker, refreshments, Howes,	2 00		
				59 05	
June and	11. 16.	J. E. Maynard, carriage *each*, 11th $8, and 16th $8, Galvin and Hiscock,		16 00	
June	13.	Benj. T. Wells, tools, bird-houses, sticks, etc.,		55 00	
Jan. to June.		Henry C. Bird & Co., plants,		24 54	
May	21.	S. M. Grant, corn and oats,		14 25	
Jan. to July.		S. Burrill, Jr., sharpening tools,		11 25	
June	1.	A. H. Chapman, lawn mower,		10 00	
May	25.	Abiel S. Lewis, plants,		9 00	
	21.	Wm. Lumb & Co., plumbers, labor, and stock,		7 40	
April	5.	Henry Munroe, repairing signs,		6 00	
May	28.	J. P. Barnard, carriage, Howes,		5 00	
		Amount of *July Draft*,			21,088 97
		Amount of Pay-roll No. 1,		$1,504 00	
		" " " 2,		1,858 98	
June	25.	Simpson Brothers, concrete walks, and repairing do.,		1,149 30	
July	21.	H. K. Parsons, red gravel,		550 00	
		Carried forward,		$5,062 28	$42,363 94

		Brought forward,		$5,062 28	$42,363 94
July	24.	John Galvin, services, $183.00; tickets for workmen, $7.00,		190 00	
	16.	A. J. Tuttle, sprinkling Charles street, Boylston to Beacon street,		125 00	
Jan. 29 to July 16.		N. Callahan, sharpening tools, etc.,		119 45	
June	15.	H. D. Parker, refreshments, Dee, Galvin,	$3 90		
	15.	H. D. Parker, refreshments, Galvin,	11 00		
	16.	" " refreshments, Clark, Dee, Galvin,	11 30		
	19.	H. D. Parker, refreshments, Clark, Dee, Galvin,	6 00		
	21.	H. D. Parker, refreshments, Clark,	2 45		
	28.	" " " Howes, Pope,	5 95		
	28.	H. D. Parker, refreshments, Clark,	1 55		
July	5.	" " " Clark,	1 00		
	9.	" " " Pope, Dee, Galvin,	13 95		
	11.	H. D. Parker, refreshments, Howes, Peters,	2 00		
				59 10	
June	13.	Steiert Brothers, plants,		41 37	
	11.	Justus Geist, "		16 00	
July	18.	James O'Toole, "		15 84	
June	16.	S. M. Grant, corn, oats, and meal,		15 15	
	28.	J. E. Maynard, carriage, Howes,	$8 00		
	30.	" " carriage, John Dee,	4 50		
				12 50	
	16.	Lampier & Richards, painting tree-guards,		7 00	
	25.	Sampson, Davenport & Co., directory,		5 00	
		Amount of *August Draft,*			5,668 69
		Amount of pay-roll,		1,867 62	
		Amount of pay-roll of discharged men,		2,612 75	
July 21 to August 20.		Owen Nawn, stone chips, gravel, and team work,		1,232 40	
August	20.	John Galvin, services, $183.00; tickets for workmen, $7.25,		190 25	
	15.	A. J. Tuttle, sprinkling Charles street, Boylston to Beacon street,		125 00	
July	15.	H. D. Parker, refreshments, Dee, Galvin,	$5 45		
	18.	H. D. Parker, refreshments, Dee,	1 80		
	24.	" " " Dee, Galvin,	8 87		
	25.	H. D. Parker, refreshments, Clark, Robinson,	2 95		
August	1.	H D. Parker, refreshments, Clark, Dee, Galvin,	6 55		
	13.	H. D. Parker, refreshments, Dee, Galvin,	5 25		
				30 87	
July 20 and August 9.		S. M. Grant, corn and meal,		15 40	
July 1 to 18.		Geo. T. McLauthlin & Co., repairing fences,		14 99	
August	20.	James Devine, two oak barrels,		4 00	
	6.	J. E. Maynard, carriage, Galvin,		2 00	
		Carried forward,		$6,095 28	$48,032 63

		Brought forward,		$6,095 28	$48,032 63
July	20.	Owen Nawn, sods, $450.00; team work, $757.50,		1,207 50	
		Amount of *September Draft,*			7,302 78
		Amount of pay-roll,		2,579 37	
		Amount of pay-roll of discharged men,		2,261 01	
Sept.	19.	John Reardon, on account of contract for care of sundry squares,		600 00	
	20.	Owen Nawn, team work, $387.50, and sods, $45.00,		432 50	
	24.	P. Callahan, on account of contract for care of East Boston squares,		300 00	
Oct.	1.	John Galvin, services, $183.00; tickets for workmen, $5.50,		188 50	
Sept.	15.	A. J. Tuttle, sprinkling Charles st., Boylston to Beacon st.,		125 00	
	18.	Geo. J. Coyle, binding gravel,		125 00	
August	21.	H. D. Parker, refreshments, Dee, $4.15; Galvin, $0.75,	$4 90		
	28.	H. D. Parker, refreshments, Robinson, Howes, Dee, Galvin, Flynn,	30 35		
	29.	H. D. Parker, refreshments, Galvin,	60		
Sept.	1.	H. D. Parker, refreshments, Clark and Slade,	5 40		
	5.	H. D. Parker, refreshments, Clark, Howes, Slade, Wilder, Thompson,	11 80		
	6.	H. D. Parker, refreshments, Clark, $4.90; Dee, $1.90,	6 80		
	7.	H. D. Parker, refreshments, Clark, Dee, Galvin,	8 50		
	9.	H. D. Parker, refreshments, Clark, Dee, Galvin,	9 00		
	11.	H. D. Parker, refreshments, Dee, Galvin,	3 45		
	13.	H. D. Parker, refreshments, Clark, and Howes,	4 80		
	14.	H. D. Parker, refreshments, Dee, Slade, and Smardon,	6 65		
	15.	H. D. Parker, refreshments, Dee, Howes, and Pope,	11 15		
				103 40	
June 30 to Sept. 5.		James F. Marston, carpenters' work and stock,		68 69	
June 14 and Aug. 15		Everett & Small, lawn mowers,		40 00	
Aug.	25.	J. W. Leighton, repairing fountain Independence Square,		30 00	
June 25 to Sept. 10.		S. Burrill, Jr., repairing tools,		15 75	
August	30.	S. M. Grant, corn and oats,		9 80	
	28.	J. P. Barnard, carriage, Pope,	$4 00		
	31.	" " " "	2 00		
				6 00	
	31.	Cambridgeport Diary Co., stamps, stationery, etc.,		8 58	
Sept.	10.	Rockwell & Churchill, note paper,		4 00	
May	15.	George Billings, trees,		3 75	
		Carried forward,		$6,901 35	$55,335 41

	Brought forward,	$6,901 35	$55,335 41
July	9. Scollan Bros., teaming,	3 00	
	Amount of *October Draft,*		6,904 35
	Total amount, including October Draft,		$62,239 76
	Payments have been made since October 1, by the Treasurer, under authority of an ordinance of the City Council, to discharged men, amounting to		684 51
	Total payments to October 15, 1877, inclusive,		$62,924 27

Average number of laborers employed, per day, 110.

The appropriation asked for by the committee early in the year was $70,700. This was reduced by the City Council, on the recommendation of the Committee on Auditor's Estimates, to $65,100.

No estimate, of course, was made by the committee, when asking for their appropriation, for work on the Army and Navy Monument grounds, as it was uncertain at that time when the monument would be completed.

Appropriation	$65,100 00
Expenses up to Oct. 15	62,924 27
Balance unexpended	$2,175 73

The committee estimate that, in addition to the balance unexpended, there will be required the sum of $15,000, divided as follows: —

For material used in grading and putting in order the Monument grounds	$6,000 00
Teaming, tools, bulbs, etc.	1,500 00
Labor and general expenses	7,500 00
	$15,000 00

The committee respectfully recommend that the subject be referred to the Committee on Finance, with the request that they provide the means.

Respectfully submitted,

For the Committee,

OSBORNE HOWES, JR.

CITY OF BOSTON.

City Document No. 85.

REPORT OF COMMISSIONERS ON THE TREATMENT OF DRUNKENNESS IN CITY INSTITUTIONS.

To His Honor the Mayor: —

The Commissioners appointed by the Mayor of the City of Boston to consider and report on the treatment of drunkenness in the city institutions and in private asylums, and to ascertain what measures can be taken to reform the intemperate now under confinement in our institutions, beg leave to

REPORT.

(1.) Your Commissioners have visited the courts in our city before which persons are arraigned for drunkenness, consulting freely with the judges and officers of police. They have also several times visited the city institutions to which inebriates are committed, conferring with the Superintendent and other officers in charge.

Similar visits, involving like conferences, have been made to the corresponding institutions and officers in New York, Philadelphia, Baltimore, Worcester, Portland, Quebec, Buffalo, Chicago, and various smaller cities.

(2.) Under a deep sense of the frightful evils of drunkenness, upon which it is unnecessary here to enlarge, the officers of government in all these places appear to perform their duties in the execution of this department of criminal law with great fidelity and much painstaking consideration. With unimportant variations in different places, the laws and their execution are much the same. An inebriate found guilty before the courts is mulcted in a small fine with costs, and, in default of payment by himself or friends, is committed for a term varying from ten days to six months. The usual commitment in our own city is for thirty days.

RESULTS OF PRESENT METHODS.

(3.) The results of the law as it now stands, however faithfully administered, are extremely unsatisfactory. The fines imposed, if paid at all, commonly fall upon the family or friends already deeply wronged. The brief period of confinement, sufficient indeed to eliminate from the system the alcohol already imbibed, and secure a measure of physical recuperation, is quite insufficient to allay the cravings of appetite, break up the habit of indulgence, or restore any considerable degree of self-respect.

The usual consequence, therefore, on restoration to liberty, is an immediate return to evil habits, re-arrest, re-conviction, and re-commitment, with as little hope of profit as before. Your Commissioners saw a woman, yet young, who had been thus committed fifty-seven times. They learned that another had spent eleven terms of thirty days each at Deer Island in one year, leaving a month within which to become eleven times amenable to the law, to be eleven times arrested, eleven times tried, eleven times convicted, and eleven times sent down to what would seem to be her normal home. Others have been met with who have spent years within prison walls, and who seem permanently unfitted for liberty and self-care.

CONDITIONS OF SUCCESS.

(4.) Your Commissioners find a general concurrence of opinion in regard to the conditions now wanting in order to secure the best moral and economic results. For the cure of confirmed or habitual inebriety, experience seems to show that at least one year is necessary; while for extreme redeemable cases, two, three, or even more years are required.

An important, indeed an indispensable, auxiliary in this work is steady employment. It not only occupies the mind, tending to prevent the imagination from revelling in indulgence, everywhere a most fruitful source of demoralization, but it develops certain hardy elements of character essential to vigorous self-control. With commitment for longer terms, labor which is now valueless would become highly valuable; and the institutions which are now maintained at great expense might become, in a large measure, self-sustaining. The testimony of the Superintendent of our own House of Industry, with that of the Superintendent of the well-appointed House of Correction at Philadelphia, and of others, is explicit on this point.

A further result, and most important of all, would be the opportunity thus afforded for moral influence; for instructing the inmates in matters pertaining to sobriety, health, and character; and for building them up in those patriotic and manly purposes essential to a faithful discharge of personal, domestic, and civil responsibilities. Given the time herein contemplated, and means of occupation, and your excellent officers now in charge of this class of persons at Deer Island, keenly alive as they are to the exigencies of the situation, could doubtless show results as honorable to themselves as they would be gratifying to the city.

SEPARATION OF INEBRIATES FROM OTHER CLASSES.

(5.) A great unanimity of opinion is found by your Commissioners on another matter. While most of the females committed to the House of Industry, whatever may be the technical grounds of their conviction, have formed habits of indulgence in drink, and may properly be continued in the institution, and while tramps and vagabonds also may appropriately be subjected to the same discipline as inebriates, and mingle with them, thieves, burglars, and various others of the more criminal classes should not be associated with inebriates in the same institution. Their presence, it is felt, would tend to drag the inebriates down to their own level, and greatly prejudice the hope of their ultimate improvement. Whether this common estimate of relative character be sound or not, so widespread is the conviction in it that the propriety of such a separation of classes as is here suggested is on many hands confidently affirmed.

ELASTICITY OF METHOD.

(6.) Another opinion, held with equal confidence, is that some inebriates are much farther removed from, and are, therefore, with much greater difficulty restored to, the responsible condition of self-control than are others; thus requiring, for different persons, treatment through various periods and by various methods. And since many of the elements of the problem cannot be known beforehand, but can only be gained by a discreet and sympathetic study of individual character during many months of administrative experience, it will be found eminently wise to lodge a measure of discretion in the hands of the Superintendent, with such advisory authority as may be deemed expedient, to place persons under his care on probation, permitting

them to go forth from the institution subject to certain prescribed conditions, and to recall them, without process, whenever those conditions shall be violated, to finish the entire period of commitment. It might be found expedient, also, to maintain a paternal oversight of those thus discharged on probation, not only for the purpose of securing conformity to the conditions, but also for counselling them in their enterprises, and saving their wages to themselves or their families.

Experience of Asylums.

(7.) Your Commissioners have also visited most of the inebriate asylums of the country, besides attending the convention of the superintendents of these asylums recently held in Chicago. They have thus enjoyed opportunities for protracted conference with gentlemen of large experience in the reformation of this class of persons. That experience is exceedingly important. It establishes the practicability of the reformation of inebriates. It shows that, with all the disadvantages under which these voluntary institutions labor, forty to fifty per cent. of those resorting to them are permanently restored to habits of industry and sobriety. The elements of weakness common to them all, aside from the question of time, are the lack of sufficient control over their inmates, and of adequate means of employing them. The admirable State institution, at Binghamton, New York, which has a voluntary department, illustrates, in its somewhat exceptional experience, both the possible strength and the actual weakness of such asylums. With most excellent appointments, and ample means of employment, its inmates, committed under the laws of the State for a term not less than a year, are easily controlled, and are treated with marked success; while voluntary members are the chief source of difficulty, and present results relatively unsatisfactory.

(8.) Thus by the substantially unanimous voice of the men who have had most experience in dealing with inebriates, judges, officers of police, and superintendents of asylums, your Commissioners are led to recommend to the City Government

A New Departure

in the treatment of drunkards brought before the courts. Without at all entering upon the question of their criminality or penal deserts, they recommend that the treatment shall aim primarily at their reformation, leaving the matter of

their just punishment to be incidentally though necessarily involved. To this end, when brought before the courts, they will not be sentenced to a given punishment, but *committed to an asylum* for such protracted period, one year or more, as experience has proved to be necessary, with discretion in the hands of the proper authorities to grant probationary absence on well-defined conditions, attended perhaps by a continued helpful oversight. With regular occupation and suitable educational and moral influences, a very large per cent. of these slaves of the cup may be restored to the dignity of good citizens.

FACILITIES AT HAND.

(9.) The House of Industry at Deer Island, with slight changes and little expense, could be employed for this purpose. The very considerable territory of the island will make extensive employment of labor in agriculture convenient. Ample workshops can be erected chiefly by the labor of the inmates of the institution.

The superintendent and chaplain indicate a lively interest in the views of your Commissioners, and would seem to be suitable officers to guide and administer the new institution. Thus, far better results, in regard both to morality and economy, would seem to be within our reach, and by substantially the same means.

Of course the aid of the Legislature must be invoked. New enactments granting the necessary power must be secured. Should the City Government approve this report, your Commissioners will be glad to render any aid in their power in connection with your legal advisers and the judges of the courts in the preparation of a bill that shall more clearly define the necessary powers and provisions, and enable the city to make what it is hoped would prove a successful appeal to our General Court.

THE DUTY URGENT.

(10.) Certainly the city fathers have a great many erring children, who can be so treated that not a few of them will be reformed, and made useful citizens. The cost of dealing with this class can be much diminished. Your Commissioners will be ready and happy to co-operate in so noble a work. They are satisfied that such action can be taken as will greatly diminish drunkenness with its dreadful evils. The work is a long one, and not to be done in a day, but it

should be begun at once; and we may safely trust that all necessary knowledge and skill will be acquired as the work proceeds. Is it right to go on in the old way, and at great expense, to make the drunkard worse instead of better?

Respectfully submitted,

A. A. MINER,
GEORGE C. SHATTUCK,
JOHN E. TYLER,
Commissioners.

BOSTON, October 17, 1877.

CITY OF BOSTON.

City Document No. 86.

REPORT OF THE JOINT SPECIAL COMMITTEE ON THE IMPROVEMENT OF STONY BROOK.

In Board of Aldermen, November 5, 1877.

The Joint Special Committee appointed to take into consideration the subject of the improvement of Stony Brook beg leave to submit the following

REPORT.

Stony Brook drains an area of eight thousand acres, and is $5\frac{4}{10}$ miles in length from the boundary line between Hyde Park and Boston to its outlet on Parker street. Its channel has but a slight fall, and is exceedingly tortuous; consequently a rainfall of more than ordinary duration causes it to overflow its banks. It is subject to an annual overflow in the spring, varying in extent with the amount of snow and ice to be carried off. As long as the land bordering on the brook was unimproved, but little inconvenience was experienced; but, as the territory has been gradually built upon, the subject has grown in importance, until it has become not only a cause of discomfort and annoyance, but also a source of disease.

This will be evident from the report of the Board of Health, dated April 19, 1877. The Board reports the examination of one hundred and twenty-four dwellings situated upon the borders of Stony Brook. One hundred cellars were found to be flooded by a sudden rise in the water to a depth of from two inches to three feet, the water remaining in them for a period of from two days to three weeks. The Board concludes its report by saying: "It is a well-established fact that wet cellars and damp dwellings are prejudicial to health; and it is the unqualified opinion of the Board of Health that the recent and present condition of the above-mentioned cellars and premises was and is such as to jeopardize the health of those living over them, and that some remedy should be applied."

The existence and extent of the evil was seen and appreciated prior to the annexation of West Roxbury to Boston, and various measures were devised for its removal, but without success. Annexation has, however, removed many of the obstacles to the improvement of the brook, by bringing the territory through which it flows under one municipal head, and thus doing away with the difficult questions which necessarily arise when the interests of two distinct municipalities are concerned.

Previous to annexation the town of West Roxbury attempted to improve the brook, but failed through the want of concurrent action on the part of the City of Boston. The necessary legislative authority was given by Chapter 223, of the Acts of 1868, and Chapter 220 of the Acts of 1870, but nothing was done by the City of Boston under either of these acts. Under the Act of 1870 the town of West Roxbury elected a Board of three Commissioners to exercise the powers granted for the improvement of the brook by both acts referred to.

Strips of land covering the entire course of the brook within the town, from Boston to the Hyde-Park boundary, were taken by these commissioners for the purpose of straightening the channel of the brook; but beyond this nothing was done, as it was believed that until that portion of the brook lying within the limits of Boston was improved, and the obstructions removed, any measures which would tend to hasten the flow of water would increase rather than diminish the difficulty.

After the annexation of West Roxbury, an act was passed (Chapter 196, Acts of 1874) authorizing the City of Boston to remove the obstructions in or over Stony Brook, and the tributaries thereof; and to divert the water, and alter the course and deepen the channel thereof.

The city may take or purchase land, not exceeding four rods in width, on either side of the present channel of said brook, or its tributaries, or of any channel into which said waters may be diverted within the limits of said city. The act further provides for the assessment of betterments, and for the adjudication of damages. The work of improving the brook must be performed in accordance with the provisions of this act.

The proposed improvement contemplates the straightening and widening of the channel of the brook for the purpose of increasing the fall and accelerating the flow of water. It is proposed to straighten the channel in West Roxbury according to the plan made, before annexation, by the commissioners. The land required for this portion of the work has

already been taken and paid for, and the expense of making the improvement in this locality, being mostly for earth-work, will be comparatively small.

From Centre street to Tremont street it is proposed to construct a new channel, and take the brook through the estates on the west side of Pynchon street, midway between that street and the Boston & Providence Railroad. At Tremont street the water will again enter the old channel, which from that point to the outlet is already of sufficient capacity.

The Street Commissioners estimate that the land and building damages on that portion of the line between New Heath and Tremont streets will amount to fifty-three thousand dollars. The damages on the remainder of the line have been settled. The Superintendent of Sewers estimates the cost of construction at eighty thousand dollars, making a total cost for the improvement, not including the amount already paid, of one hundred and thirty-three thousand dollars.

It is difficult, if not impossible, at the present time to estimate the amount of betterments which will be returned. The Street Commissioners called a meeting of the owners of land bordering upon the brook, for the purpose of learning their opinions as to how much of the burden of the cost of the improvement the lands benefited would bear. The result of the interview was unsatisfactory, and the commissioners were not encouraged to hold further meetings with the proprietors. They express the opinion that the completion of the enterprise, and the final and effectual relief of the lands upon the brook from overflow at stages of high water, would enable a better judgment to be formed of the benefits conferred. It is believed, however, that the betterments will very nearly cover the cost of the improvement.

The present value of the land flowed by freshets, and which will be greatly benefited by the improvement, has not yet been estimated. The nearest approach to it is the Assessors' valuation of the whole of each estate which borders upon the brook. This valuation in the West Roxbury District varies from one-half cent to thirty-five cents per foot, and in the Roxbury District from ten to seventy cents per foot.

A considerable quantity of land bordering on the brook remains unimproved, on account of the liability to be flowed, and consequently the annual loss in taxation is no small item. A survey of the territory shows that in West Roxbury $167\frac{9}{10}$ acres, and in Roxbury $14\frac{2}{10}$ acres are flowed,

making a total of $182\frac{1}{10}$ acres of land which cannot be improved, and which must remain at a low valuation.

It is believed that the effect of the inprovement will be to not only relieve those who dwell along the borders of the brook from the annoying and unhealthy visitations to which they are now subjected, but it will render a large amount of what is now comparatively valueless land capable of improvement.

After carefully considering the subject, your committee are unanimously of opinion that the improvement should be made, and they would, therefore, respectfully recommend the passage of the following order.

For the committee,

HUGH O'BRIEN,
Chairman.

Ordered, That a Joint Special Committee, consisting of three members of the Board of Alderman, with such as the Common Council may join, be appointed to take charge of the improvement of Stony Brook, under the provisions of Chapter 196 of the Acts of 1874; with authority to remove obstructions in or over said brook or the tributaries thereof, to divert the water and alter the course and deepen the channel thereof, and to take and purchase such land as may be required for said purpose, the estimated cost therefor not to exceed the sum of one hundred and thirty-three thousand dollars.

CITY OF BOSTON.

City Document No. 87.

REPORT ON DEPARTMENT OF COMMON AND PUBLIC GROUNDS.

In Common Council, Dec. 6, 1877.

The Joint Special Committee appointed to investigate and report whether or not any neglect of duty has occurred in the Department of Common and Public Grounds; if so, who are responsible therefor, and what measures should be taken to prevent similar occurrences hereafter, — having considered the subject, would respectfully submit the following

REPORT.

The Common and Public Grounds and Squares of the City of Boston consist of the following: —

Name.	Locations.	Area.	Remarks.
City Proper.			
Common	Park, Tremont, Boylston, Charles and Beacon	*48¼ acres.	Enclosed by an iron fence.
Public Garden	Charles, Boylston, Arlington and Beacon	24¼	"
Fort Hill Square	Oliver and High	40,000 sq. ft.	
Franklin Square	Washington. East Brookline and East Newton	105,205 "	"
Blackstone Square	Washington, West Brookline, West Newton, and Shawmut Avenue	105,100 "	"
Chester Square	Between Washington and Shawmut Avenue	57,860 "	"
Commonwealth Ave.	From Arlington to West Chester Park	429,500 "	† "
Union Park	Between Tremont St. and Shawmut Ave.	16,000 "	"
Worcester Square	Between Washington St. and Harrison Ave.	16,000 "	"
Lowell Square	Cambridge and Lynde	5,772 "	"
Park Square	Columbus Avenue, Eliot and Pleasant	2,867 "	
South Boston.			
Telegraph Hill	Thomas	199,000 "	"

NAME.	LOCATIONS.	AREA.	REMARKS.
Independence Square .	Broadway, Second, M & N	6½ acres.	Encl'd by iron fence.
Lincoln Square	Emerson, Fourth and M . .	9,510 sq. ft.	"
EAST BOSTON.			
Maverick Square . . .	Sumner and Maverick . . .	4,398 "	
Central Square	Meridian and Border . . .	32,310 "	"
Belmont Square. . .	Webster, Sumner, Belmont and Seaver . . .	30,000 "	"
Putnam Square	Putnam, White & Trenton	11,628 "	"
Square	Trenton, Eagle & Prescott	12,284 "	
ROXBURY DISTRICT.			
Madison Square	Ruggles, Cabot & Sterling	122,220 "	
Orchard Park	Eaton and Yeoman	79,337 "	
Washington Park . . .	Dale and Bainbridge . . .	396,125 "	
Longwood Park	Park St. and Oakland Pl. .	21,140 "	
Walnut Park	Between Washington St. and Walnut Avenue .	5,736 "	
Lewis Park	Highland and New Sts. . .	5,600 "	
Bromley Park	From Alford to Bickford	19,770 "	Two enclosures.
Fountain Square . .	Walnut Ave., from Munroe to Townsend . . .	103,000 "	
Cedar Square	Cedar Street	30,794 "	
Linwood Park	Centre and Linwood . . .	3,625 "	Encl'd by stone curb.
DORCHESTER DIST.			
Dorchester Square . .	Meeting House Hill	57,512 "	Soldiers' Monument on this square.
Square	Church and Bowdoin . . .	12,427 "	
CHARLESTOWN DIST.			
City Square	Head of Bow, Main, and Chelsea	9,330 "	Enclosed by an iron fence.
Sullivan Square . . .	Main, Cambridge, and Kingston	56,428 "	"
Winthrop Square . .	Winthrop, Common, and Adams	38,450 "	Enclosed by an iron fence. Soldiers' Monument on this square.
Public Ground . . .	Essex and Lyndeboro Streets	930 "	
WEST ROXBURY DIST.			
Public Ground	Shore of Jamaica Pond . .	31,000 "	
BRIGHTON DISTRICT.			
Public Ground . . .	Pleasant and Franklin Streets	1,900 "	
Jackson Square . . .	Chestnut Hill Ave., Union and Winship Sts. . . .	4,300 "	Enclosed by stone curb.

* Exclusive of Cemetery, containing one and a quarter acres.
† Fence from Fairfield street to West Chester Park, not yet erected.

The Committee on Common and Public Grounds have the care and custody of these; under the direction and control of the Committee on Common and Public Grounds the Superintendent of Common and Public Grounds has the care and superintendence of the same; they have the entire direction and care, and all improvements or alterations, or repairs, which have been made in the above-named places, have been made by them or by their authority. The Common has been the pride of the citizens of Boston for many years, and is now, and justly too; its pleasing variety of hill and dale, its gradual and easy rise from Boylston street to the hill crowned by the State House, its greensward, and best of all, its grand old trees, make it a fitting adornment to our city. Situated as it is, in the very heart of the city, it is unlike the public parks of most other cities in this respect, — it is easily and quickly reached; and in the summer season the fatigued and overheated citizens, and that large number of persons who find it inconvenient or impossible to leave the city, can quit the hot pavements of our streets, and heated brick walls, and in a few minutes enjoy here the pure air, green grass and trees, and nearly all the usual sights and benefits that the country affords. But while this accessibility is a pleasure and a benefit to the citizens, it fails to be an advantage to the appearance of the Common or to the trees or the grass; on the contrary, it is a positive disadvantage. Pedestrians going from one section of the city to the other, for the purpose of business or pleasure, or, as in many cases, to reach the railway depots, find it convenient to "cross the Common," and the paths and malls have become to all intents and purposes public highways, at certain hours of the day and evening, as crowded as Tremont row or Court street. The consequence of this is, the earth in these much-travelled paths and malls has become hardened to the extent of making it almost impervious to water, and the trees which fringe and shade these malls, whose roots run under them, get little moisture and nourishment through this hard-packed soil when a rainfall comes, the water running quickly off into the gutters and sewers. The effect of this is obvious, — the trees do not thrive; in some instances they die; the asphalt which was put down in some of the paths and malls to save them has made the matter worse.

The Public Garden, from an ash-heap within the memory of men now living, has become one of the most attractive spots in the country.

Some travelled persons (witnesses before us) declare it to be the prettiest Public Garden on either side of the Atlantic; others affirm it to be *not* pretty, but insignificant and un-

worthy. It is a question of taste and opinion. From the whole testimony, it appears to answer the present purposes of the city and meet the wants of the average citizen. It has few or no expensive plants and shrubs and tropical flowers; but to replant it with the higher grade variety of evergreens and shrubs, alluded to by the last-mentioned class of persons, would cost a great deal of money, — more than can be afforded at the present time. It is estimated that to replant the Public Garden properly, with different and finer flowers and plants, would cost not less than $50,000, and that it would require $30,000 per annum to *keep* and maintain it. Under the present system it costs now in the neighborhood of $20,000 per annum to carry it on. Whether the results obtained from this outlay are adequate was not made very clear by the evidence. The only comparison as to cost made was between the Public Garden and private estates. It is plain that this could be no true test.

Private estates in the country do not get the wear and tear which the Public Garden is subjected to; their walks and grass can be kept in order cheaper. Besides, the flowers used in the Public Garden are bought; those used in private estates were raised in greenhouses on the spot; and this brings us to the consideration of the question, whether it would be wise for the city to build a greenhouse? We are compelled to say, from the evidence, it would not be wise. In the first place, the city has no proper place to build three greenhouses, — it was shown that it would require three to raise 30,000 plants, the quantity used by the city, — and, secondly and more important, the kind and variety of plants used on the Public Garden are not worth being housed and cared for during the fall and winter months. It would be cheaper to give away or destroy the flowers after the first of November than to take them up and put them away in greenhouses.

The few expensive plants bought by the sub-committee on Common and Public Grounds (the rhododendrons and azalias) were bought, in the usual course of business, from respectable business persons, and at no unreasonable price; the other cheaper variety of flowers used in the Garden were bought also by a sub-committee, and the price does not seem to have been exorbitant. The sub-committee purchase all the flowers for the city; they do it in their best judgment and discretion.

The rhododendrons might have been and ought to be, if they are to be used hereafter, imported directly by the city. It would be considerably cheaper. The contract made by

the sub-committee with Galvin Bros. was a verbal one, and rather loose in its character. There was no advertisement made for bidders, although the committee did make inquiries among florists in the city as to prices. Nothing has been shown that the prices paid were not reasonable and fair; but it does seem that there should have been greater scrutiny exercised by the committee in examining the flowers delivered to the city as to their quantity and quality. There was error on the part of the sub-committee in these respects.

The grading and improvements made around the Soldiers' Monument will be an ornament to the city; but no such extensive work and expenditure of money were contemplated by the Committee on Common and Public Grounds. The vote passed Aug. 28, 1877, at the meeting of the committee, from the evidence, we must admit, *was passed* as we find it recorded in the clerk's book, from memoranda made at the time, — "that the superintendent be authorized to have the necessary grading done near the grounds of the Army and Navy Monument." But, from the conversation and general discussion among the committee when the vote was passed, it would appear that no member had in his mind an expenditure larger than $2,500; and the impression seems to have prevailed among the majority of the committee, that it would cost no more than $400 or $500. We are clearly of the opinion that, if the committee had understood that any such an amount would be spent as was spent, they would not have passed the vote.

It does not appear, however, that the Committee on the Army and Navy Monument, who made the request for this grading spoken of, or the Committee on Common and Public Grounds, had any very clear conception of the extent of the grading required, or the amount of money necessary to do it. It was during the latter part of August, and the Army and Navy Monument Committee were getting ready for the celebration on the 17th of September.

The necessity of more grading and work seems to have opened up as this work progressed and the day of celebration approached; the superintendent, under the vote passed, felt authorized to do that which in his judgment was necessary to be done. It is in evidence that what was done was very well done, and, sooner or later, would have to be done. In our opinion, the committee erred in not seeing to it that no more money was expended than they intended should be expended. It did appear that some of the committee remonstrated when they learned the condition of things, but it seems that it was either too late, — the 15th of September, — or fruitless.

The city pays fifty cents per load for loam to be used in its public grounds, and a large number of loads are used annually; street-sweepings, after they have laid one or two years, are said to be the best loam. From January 1st, 1877, to October 26, 1877, it appears, from the Superintendent of Health's statement (Mr. Geo. W. Forristall), that we have gratuitously given away 36,511 loads of sweepings; this is done, and gladly done, because we have no place to deposit this large quantity. It turns out in the course of things, however, that a part of these very sweepings, when it has become suitable, is sometimes brought back by the city to be used on our Public Garden and public grounds. It is true the Superintendent of Health saves the best of these sweepings and sells them to the farmers; but the city ought not to be buyer of an article which she already has or can easily have.

The manner in which laborers are procured to work on the Common and Public Garden (through the "influence" or by the recommendation of members of the City Council) is an unqualified nuisance and wrong; it has grown up under our system of government, but it is bad in every particular, — bad for the Alderman or Common Councilman who is put to the inconvenience of begging or demanding the situation sought for; bad for the laborer who gets and holds his situation only through the favor of the Alderman or Common Councilman; and bad for the city, who has to pay for the services of a person sometimes ill-qualified for the work, to be changed in a few weeks for another still less qualified. Let it be abolished! The city needs in this department a permanent body of men, trained to the work.

The time will come, doubtless, when the Common and Public Garden will be under the custody and care of the Park Commissioners, and that time may not be very distant. When the extensive system of parks now contemplated shall be laid out and put into actual operation, it will be very much more convenient to have all the public pleasure-grounds under the direction of one board of officers; at present the committee are not prepared to say that this change should be made, inasmuch as the present Park Commission (unpaid as the members are) was organized mainly for the purpose of securing land and laying out parks not now in existence, and estimating and determining land damages sustained by persons whose property has been taken for this purpose, and it was not contemplated, at the time of the formation of the commission, that they should have the burden of the care of the Common and Public Garden placed upon their shoulders. A more substantial reason,

however, is found in this, — in the opinion of the committee, under Chap. 185, Statutes of 1875, and the City Charter, Sect. 39, the commission have no legal right to the custody and care of the Common; nor can the City Council give them the right until the Legislature gives them the power.

The Committee on Common and Public Grounds, in their report submitted in the Common Council, October 18, 1877, say that, —

> The appropriation asked for by the committee early in the year was $70,700. This was reduced by the City Council, on the recommendation of the Committee on Auditor's Estimates, to $65,100.
>
> No estimate, of course, was made by the committee, when asking for their appropriation, for work on the Army and Navy Monument grounds, as it was uncertain at that time when the Monument would be completed.

Appropriation	$65,100 00
Expenses up to Oct. 15	62,924 27
Balance unexpended	$2,175 73

> The committee estimate that, in addition to the balance unexpended, there will be required the sum of $15,000, divided as follows: —

For material used in grading and putting in order the Monument grounds	$6,000 00
Teaming, tools, bulbs, etc.	1,500 00
Labor and general expenses	7,500 00
	$15,000 00

From the above, it appears that the Committee on Common and Public Grounds have expended more money than the City Council appropriated for that department for this year. This was a serious mistake; the committee had no legal nor moral right to do it, and from any stand-point it was clearly and inexcusably wrong. The joint rules of the City Council require that, —

> Whenever an expenditure is required for an object, or a purpose, not contemplated at the time the appropriation was made, the committee, board, or officer having charge thereof shall furnish to the City Council a detailed statement in print of the expenditures already made, and the necessity for an additional appropriation; and no contract shall be made, nor expenditure authorized, in either case, unless provision for the same shall be made by special transfer from some of the appropriations contained in the general appropriation bill, or by loan.

We have already adverted to the probable manner in which the Committee on Common and Public Grounds were led into the commission of this mistake; but it was no less a mistake, and a grave one, to say the least; the blunder was in

passing the limitless vote they did, — "that the superintendent be authorized to have the necessary grading done near the grounds of the Army and Navy Monument." Under this authorization it is fortunate that the deficiency in the appropriation is as small as it is. The only manner in which the expenditure of money could have been controlled under this vote, and kept within the bounds of the intention of the committee, was by a personal oversight, on the part of the committee, of the work being done.

If it be answered that this was impossible, or asking too much of the committee, the reply is, then, that they should not have passed such a vote. With the limited information which the committee possessed as to the amount of grading required, they may have thought it their duty to pass the vote; but, having passed it, they should have taken the precaution to protect the city's interest by seeing to it that the amount expended did not exceed their intentions; and, when it became apparent, that it would require a very much larger amount of money to complete the grading around the Monument than was originally contemplated, the committee should have immediately reported the fact to the City Council, and asked for an additional appropriation.

At the request of the committee, the City Engineer made a survey of the work done around the Soldiers' Monument, with a view of finding out the amount of material used in filling and grading. We append his report: —

OFFICE OF CITY ENGINEER,

CITY HALL, BOSTON, Nov. 20, 1877.

Estimate of amount of filling around Soldiers' Monument, on Boston Common, as measured in place, eight hundred and thirty-five (835) cu. yds. of stone; twenty-six hundred (2,600) cu. yds. of loam.

JOS. P. DAVIS,
City Engineer.

To ALD. HUGH O'BRIEN,
Chairman of Investigating Committee, etc.

The above-mentioned survey of the work done around the Soldiers' Monument was made by the City Engineer about the middle of November, two months, or more, after the earth and gravel had been deposited there.

In submitting this report the City Engineer, in a conversation, stated to the committee that when loose earth had laid any length of time, from rain and other causes, there would be a shrinkage of 33 per cent. He also said that there were found very many stones, large as a man's head,

at the bottom of the road-bed, and that gravel and stone-chips would get into the interstices between these large stones to an extent that would cause a shrinkage of 15 per cent. Mr. Owen Nawn, contractor, who furnished loam, stone-chips, and gravel, used around the Soldiers' Monument, testified that he delivered 5,635 loads of loam, and 950 loads of stone-chips and gravel; also, that his carts measured 20 cubic feet, and that he received 50 cents per load for loam, and $1.15 per load for stone-chips and gravel, and for each load of gravel or loam delivered on the grounds about the Monument he received a ticket.

George Coyle, according to his bill against the city, delivered 414 loads of loam, at 50 cents per load, and Martin Hayes, we find, delivered 494 loads of loam, at 50 cents per load. This, Mr. Galvin says, was all the material used around the Monument for filling and grading. The following is submitted: —

835 cubic yards of stone =	22,545	cubic	feet.	
950 loads of stone at 20 cubic feet per load = .	19,000	"	"	
Difference = . .	3,545	"	"	= 177 loads.
835 cubic yards + 15 per cent. = . . .	26,926	"	"	
950 loads at 20 cubic feet per load = . . .	19,000	"	"	
	6,926	"	"	= 346 loads.

Or 346 loads increase of stone, etc.

2,600 cubic yards soil =	70,200	cubic	feet.	
Add $\frac{1}{3}$ for shrinkage . .	23,400	"	"	
	93,600	"	"	
6,543 loads soil at 20 cubic feet per load = . .	130,860	"	"	
	37,260	"	"	1,863 loads.

Or 1,863 loads decrease of loam.

It appears, from the foregoing figures, that there is a difference between the City Engineer's estimate and the tickets, in favor of the city, of 1,863 loads of loam, and a difference in favor of the tickets of 346 loads of stone-chips and gravel. Expressed in a money value this difference is $533.60 in favor of the city; that is, if the above calculation is correct, the city has paid, or will have to pay, $533.60

for an article not delivered. In this connection it ought to be stated, that the City Engineer also said that any survey that might be made would not be absolutely correct; that there is a wide margin, either way, for error; and we ought, also, to add that there is a prevailing impression that tip-carts do not hold 20 cubic feet.

The manner of conducting business, in the meetings of the Committee on Common and Public Grounds, was irregular; there was lack of parliamentary precision and decorum. This is to be condemned.

For some time the keeping of Franklin square, Blackstone square, Union Park and Lowell squares has been given out on contract, and the cost has been moderate. The committee would recommend that this practice be continued, and that hereafter a still greater number of the public squares be included in the contract work.

The committee are of the opinion that too many men have been employed in the Department of Common and Public Grounds. They recommend, for the future, a reduction of the force.

In relation to the elm-trees in Chester square, the committee believe that it is impossible to make them grow in that locality, because of the unfavorable character of the soil and the proximity of the poplar-trees, with their thick and far-reaching network of roots.

The committee recommend the passage of the following Ordinance, Amendment to the Joint Rules, and Resolution: to amend the ordinance on Parks, page 590, Statutes and Ordinances, by adding the following: —

Be it ordained, etc.: —

When trees, plants, shrubs, flowers, or evergreens are required to be used on the Common and Public Grounds, exceeding in value $500, the Committee on Common and Public Grounds shall advertise in two or more newspapers, during the autumn preceding the spring that they may be required, for sealed proposals for furnishing such trees, plants, shrubs, flowers, or evergreens, describing as particularly, as may be, the quantity and quality, and the times and places of delivery. Such proposals shall be opened at a meeting of the Committee on Common and Public Grounds, and the contract shall be awarded the lowest bidder.

Rule 5 of Joint Rules and Orders of the City Council is hereby amended, by adding the following: —

"And at all meetings of committees, the records of the

previous meeting shall be read," so that it shall read, "The Joint Standing Committee shall cause the records of their proceedings to be kept in books provided for that purpose, and at all meetings of committees the records of the previous meeting shall be read."

Resolved, That a proper performance of the city work requires that the Superintendent of Common and Public Grounds should hire the laborers employed in his department, free from the interference or suggestion of members of the City Council.

Respectfully submitted,

HUGH O'BRIEN,
CLINTON VILES,
GEO. DUNBAR,
GEORGE L. RUFFIN,
NATHAN S. WILBUR,
ALFRED S. BROWN,
WILLIAM J. BURKE,
ROBERT VOSE, JR.,
Committee.

ADDENDA.

Appropriations and Expenditures for the Department of Common and Public Grounds for the following years, prepared at the request of Alderman O'Brien, Chairman of the Committee to investigate the Department of Common and Public Grounds.

YEAR.	Original Appropriation.	Expended.
1868-69	$44,167 00	$60,671 54
1869-70	59,800 00	64,720 04
1870-71[1]	75,000 00	60,918 25
1871-72	87,850 00	77,946 87
1872-73	90,000 00	91,347 87
1873-74	80,000 00	90,120 94
1874-75[2]	115,700 00	94,413 23
1875-76	85,000 00	84,185 14
1876-77	75,450 00	89,129 55
1877-78	65,100 00	62,024 27 to Oct. 15.
Totals	$778,067 00	$776,377 70

[1] 1870-71. Transferred to special appropriation for grading Madison square, $12,000.

[2] 1874-75. Transferred to special appropriations, viz.:—Tremont-st. Mall Curb $10,000; Fountain, Independence square, $4,000; and Commonwealth-ave. Extension, $3,921.11.

ALFRED T. TURNER, *Auditor.*

APPENDIX.

THE PUBLIC HEARING.

BOSTON, Oct. 23, 1877.

The committee met at four o'clock, in the Common Council Chamber.

Present, — Aldermen O'Brien (chairman), Viles, Dunbar; Councilmen Ruffin, Burke, Brown, Wilbur, Vose.

The chairman called the committee to order, and read the order constituting the committee, as follows: —

Ordered, That a Special Committee, consisting of five members from this branch, with such as the Board of Aldermen may join, be appointed to investigate and report whether or not any neglect of duty has occurred in the Department of Common and Squares; if so, who are responsible therefor, and what measures should be taken to prevent similar occurrences hereafter.

The CHAIRMAN. — In accordance with that order, the committee advertised for a public hearing, and they are now ready to hear anything that any person has to say of the management of the Common and Squares. If any gentleman is present who desires to say anything, the committee would be very happy to hear him.

STATEMENT OF TERENCE C. SMITH.

Mr. SMITH. — I would inquire of the committee whether it is in order to speak for or against?

The CHAIRMAN. — It don't make any difference to the committee whether it is for or against. The committee desire to hear all parties, either for or against.

Mr. SMITH. — More by accident than anything else I happened to come along and hear that such a hearing was to be here. In fact, I have no more interest than a public interest; and as a tax-paying citizen I thought it my duty to come here and explain my views as best I know how, without summons or invitation from any live man, even the chairman of the committee. I haven't spoken to Mr. Galvin for two or three years previous to one minute ago. I think we have the best Common and Squares in the world, and since he has been Superintendent, — party prejudice don't amount to anything with me, — I will say that Mr. Galvin has taken care of the public squares and the Public Garden; and as a tax-payer I am willing to pay my share for them. I think, as a

citizen, that he has given me and my neighbors all the satisfaction that we desired. I don't know what the charge is, but I happened to be passing, and I merely came in to express my actual feelings in the matter. That is all.

STATEMENT OF JOHN W. HOBBS, *of* 50 *East Chester park.*

Mr. HOBBS. — The park there, which any one can see by going into it, is in such a condition that I think our property wouldn't sell for fifty per cent. as much as it would if the park had been kept properly, as it should be.

Mr. WILBUR. — What park is this?

A. The park of about seven hundred feet, which runs from Washington street to Harrison avenue. It is called East Chester park. I moved in there eleven years ago. Trees have been set out there and pounded down and cut out three months afterwards. There is no tree there that the City Forester has set out, except those set out this year, and those are nearly half dead. They set out thirty last spring, and within three months they cut down three of them. There are men there who have to pay high taxes, — Mr. Ritchie, Mr. Lewis, and others, — and we all pay heavy taxes, and our property is depreciated in value when purchasers come to look at the street. Fort Hill never looked as bad as that does. They pretend to say that the trees won't grow. If they won't grow in eleven years, I think we are entitled to loam, or something of that kind, to make them grow. I am nearly fifty years old, and I am afraid I shall not enjoy them much if I have to wait many years for them to grow. I think the City of Boston has neglected us. It may not be Mr. Galvin's fault that the trees do not grow; but when I was a boy and lived in the country I used to set out trees, and they lived.

Ald. VILES. — Do you think it is the fault of Mr. Galvin that the trees die?

A. I think they don't have roots enough. When I was a boy and set out trees, I had the roots so that they could grow. Any one can see for himself; and if there is a park or square in Boston one-quarter as bad as that, I have never seen it.

The CHAIRMAN. — How many of the trees originally set out lived?

A. I don't think many. I have lived there eleven years, and none are living now. Those trees are set out every spring, except last year. This year twenty-six trees have been cut out, and there are the stumps. Then I think that year before last six trees were set out somewhere else, with sprouts on the stump, and those all died.

Mr. RUFFIN. — As I understand, this inquiry only extends over this year. How many of those trees have been set out this year?

A. I think about thirty-five or forty maple trees were set out this year, of which twenty-six have been taken out. There were guards before, but they were taken out, and not put back.

Q. How many of those are living?

A. There are twenty-six out, and I should think there might be ten or a dozen living. There might have been forty set out; I don't know. I didn't count the number of places of those trees; but I did count the number of trees out, and that is twenty-six.

Q. Do you attribute it to improper planting?

A. I attribute it to the City of Boston neglecting to have proper earth for them to live. Mr. Galvin may be an expert in setting out trees; his men may understand the business. But you know you cannot make a tree live if you drive it into the ground. Now they say it is because there are poplars there. There is distance enough, and I know that in the country they grow naturally.

Mr. WILBUR. — Do you think the maple and elm will grow in close proximity to these poplars?

A. I don't know whether they will grow where the small trees are so thick.

Q. Do you mean Chester park or square?

A. I mean the park. I think the square is better taken care of than the park.

Q. Is that portion of it from the square to Washington street? Isn't the great portion between Shawmut avenue and Washington street — I mean the park, not the square? Isn't there quite large poplar trees on that portion?

A. There may be. I think there is, nearly to the square.

Q. Now what portion of the square is it that these trees have been set out?

A. I don't refer to that side at all. I am speaking of Chester park, which runs from Harrison avenue to Washington street; West Chester park is from Tremont street the other way.

Q. In setting out those trees do you say that they have been stuck down in the ground with no roots?

A. It seems to me there has been no care, and that they do not get earth and roots enough. This year the guards were taken away and not carried back. I don't think the boys meddle with them, and it seems that they died for want of care. There is a great distance between them and the poplars. A few steps above my house there are a few poplars, but not in the part where they were set out last year and died.

Ald. DUNBAR. — Have you made any complaint?

A. Year after year we have spoken to those in City Hall.

Q. Have you made any complaint this year?

A. No, sir; what is the use of making so many complaints? We get no redress, and we have stood it. Dr. Nicholls told me this morning that the City Government had a grudge against that park. We pay taxes; we went there and bought property. I think you have been on that park, Mr. Brown.

Mr. BROWN. — We visited it the other day.

The CHAIRMAN. — Is it a difficult place to make trees grow?

A. No, sir; they grow very well on the other park.

Q. Are they not interfered with by the curbstone?

A. No, sir; they have never been interfered with by the curbstone.

Mr. WILBUR. — Did you say you never had any conversation with Mr. Galvin in regard to these trees?

A. I did once, about nine years ago, and he seemed to doubt it. I have talked with others in City Hall.

Mr. RUFFIN. — Did Mr. Galvin give any explanation of the death of the trees?

A. No, sir; he might have said something about the poplars.

Q. What did he say?

A. I don't know exactly. He brought some objection.

Mr. BROWN. — Have you said anything to him this year?

A. No, sir: nothing this year.

Mr. RUFFIN. — Did he say anything about the poplars?

A. No, sir.

Q. Wouldn't that have been a satisfactory explanation?

A. No, sir. We have been there eleven years, and found it was no use to say anything. Those are the facts. I want to sell my property and get out of there. They have been neglected, and it injures our property. I have friends who want to sell property there. It should be better. The parks on the Back Bay are in good condition. We have come to this conclusion: that if there were less flowers on the Back Bay and more trees on Chester park we would be better off.

Mr. VOSE. — As I understand you, the idea is, there is no cause of complaint other than that if there were a few more trees on that park you would be better satisfied?

A. I should have been better satisfied during the eleven years I have lived there; but I don't expect to live there much longer.

Q. I hope you will live to see a round eighty, and sit under the shade of those trees yet.

A. I don't think there is any prospect of it.

Mr. BROWN. — Can you tell how many trees there were on the park eleven years ago, or longer?

A. I don't know; perhaps Mr. Galvin can say how many trees have been set out in that park. I know there have been twenty-six cut out, and nothing but the stumps remain. I know there was something said about it this year, and he says they are dead.

Q. Are there any spaces on that square where the tops of the poplars do not meet?

A. There are spaces there where the poplars don't come within two hundred feet of a tree. On Harrison avenue I don't think there are any poplars until you get to the fifth house, where I live. I don't think that if a tree is shaded by the poplars it would be prevented from growing. I don't know what the poplar roots might do; I think the earth should be taken out and all these stumps removed; there is not an old or new tree there worth being there. The city is paying, every year or two, for putting in those trees, and they die.

Alderman VILES. — Would you suggest the taking of them all out?

A. Yes, I would rather see the whole thing taken out and the square paved over, than for it to be in the condition it is. The

city has been liberal and done well, so far as the street goes; but the park has been neglected, and it is just because we are on the other side; that is all the way we can account for it.

Mr. WILBUR. Can you suggest any way to remedy it, and make the trees live?

A. Put in some proper earth or loam. I can set trees out so that they will live. If that park was as it is on the Back Bay, the trees will grow. But you put in large trees like them, — those bean-poles, — and they won't be likely to live. In other countries, in Paris, France, they put out large trees; and in all other cities in Europe the trees are taken care of, and there is no trouble. But you set out a small tree like that, and take away the guards, and the trees won't live.

Q. Have you any complaint to make other than in regard to this square?

A. No, sir. I think the fault is with the city. I don't know that it is Mr. Galvin's fault. When the trees are placed there they should be placed in good earth, and the roots should be watered.

The CHAIRMAN. — Has Mr. Galvin any questions?

Mr. JOHN GALVIN. — I have no questions to ask, but I wanted to call the person who planted the trees, and who is competent to do it.

STATEMENT OF MICHAEL WARD.

The CHAIRMAN. — Did you plant the trees on this square between Washington street and Harrison avenue?

A. Yes, sir.

Q. What is the trouble with the trees in that neighborhood?

A. Well, sir —

Mr. GALVIN. — Did I tell you you couldn't make trees grow there before you planted them out this season?

A. Oh, no, sir; no need to tell me. I will take myself with any man for planting trees. I have been forty-five years in that habit.

The CHAIRMAN. — Will you state to the committee what facts you desire in relation to the trees?

A. The tree there that is called the poplar has a nest of roots as thick as moss can grow in the wood, extending from two inches below the surface to twenty inches below, and for six feet around in a circle. That is just the reason there are no trees there. Even if we plant the trees there we find that young willow-trees will shoot out and grow very freely, and it takes away all the substance from any shade tree that goes in there. It will not allow it to grow, and it cannot. I have put in some poplars there, and every single one is growing, because it is their nature.

Q. How long have you been in the business of planting trees?

A. Forty-five years.

Q. And you consider that you have had a great deal of practical experience?

A. I have, sir. You can take me back to the village of Ded-

ham, where I worked nearly thirty years, and I will refer myself to William Gray, whose planting I did for fifteen years, and Daniel P. Stedman, and Mr. Nazro; and, in fact, in those parts I am considered a man just fitted to select trees and put them out.

Q. What was your object in planting trees there when they wouldn't grow?

A. My object was because I was ordered. The trees were on the ground, and I had to plant them.

Q. But still you believed that they wouldn't grow there after you planted them?

A. No, sir, the trees won't grow if the poplars are there. Take it from Tremont street, and the maple-trees have lived, because there are no poplars there. Where the poplar is you cannot find a growth for the maple. They may live a few years, but they will die.

Alderman VILES. — You seem to be an expert; what would you do with the square if you owned the whole of it?

A. I would take that square clean out, except the park, and widen the sidewalks four feet or more, and put in a row of four-feet trees; and I will warrant every tree I put in, provided I get good loam, and the street will look better.

The CHAIRMAN. — Why wouldn't the same result follow by taking out the poplar-trees?

A. Where those trees are taken out, all the loam should be taken out with it, and there should be put in new loam.

Q. And then they would be sure to grow?

A. Yes, sir, I will risk it; I will warrant every tree I set out. In case I put a tree out I would warrant it.

Alderman VILES. — Then you don't believe you can improve the condition of it?

A. No, sir, I do not. In the spring I put out young poplar-trees, and every one is growing. They are a swamp tree, and not fit for filled-up land. But you cannot get an elm or maple, or anything of that shape, to grow, because if you dig across the streets, you will find a mass of roots twenty inches deep. I can prove it to any one who wishes to see it.

Mr. BROWN. — What has been the cost of the trees you have planted on that square this year?

A. I don't know anything about the cost.

Q. Do you know how many trees you put out there?

A. I couldn't tell you. I kept no memorandum.

Mr. GALVIN. — Those trees were bought and warranted, and there has not been a dollar paid for them yet.

Mr. OSBORN HOWES, Jr. (To witness). — You say you planted all of those trees on West Chester park and on East Chester park?

A. All along, from Columbus avenue down to Albany street.

Q. Did you look at the trees when they were received?

A. Yes, sir; but I didn't do the receiving of them.

Q. Did you see me there when you planted them?

A. I don't remember.

Q. Do you remember telling me that those roots were cut off too short around the tree to live any way?

A. I see some trees planted at that time which had been cut off too short, and the fibres wouldn't support them.

Q. And that they had no small tendrils, and possibly wouldn't live?

A. Yes, sir.

Q. Wasn't that possibly the case on Chester park rather than the soil?

A. No matter what soil you have, I will give you a fifty-dollar bill for every maple-tree you make grow there.

Q. Don't you find that they grow upon Columbus avenue and other points?

A. They are similar to the poplar.

Q. No, sir; they are the rock maple.

A. Where, on Columbus avenue?

Q. Yes, and also the rock maple in some cases on the side streets — Newton and other streets — at the South End, where the soil is the same.

A. But you won't find any poplar there.

Q. No poplars on West Chester park?

A. Not on East Chester park.

Mr. HOWES. — Oh, yes; I counted them from Columbus avenue; there are twelve.

STATEMENT OF OSBORNE HOWES, JR.

My reason, Mr. Chairman, for asking, was because I was on the committee, and happened to be there. They were not all good trees. They were purchased on a warrant. I saw this man planting them on Chester park. With the very little knowledge I had of trees, I knew they were not proper trees. He and his men said they were not good trees. I said, Why don't you stop them? and he said they came from the Common, and he would have to take them; and, as he says, they were planted. I think a large portion of them have died, as I expected. They were not up to sample.

STATEMENT OF A. D. WEBBER.

Mr. WEBBER. — I live in Chester square, but for about twenty-three or twenty-four years I had a place out in Wellesley, near Mr. Hunnewell's, and I am somewhat acquainted with trees. I understood that for six or eight years last past they have had an annual setting out of trees in Chester square and Chester park; and for the last seven years they have set out one hundred and twelve trees. While they were setting them out I told the man that was setting them out it was no use to put out trees in that way, and they wouldn't live. I went to Mr. Galvin, and told him the same. He said they were good trees, and, being well set out, they would live. The way they were set out was, there had been trees there before, and a hole dug perhaps a foot deep. The outside area is made a little moist. The tree was set down with it,

and, of course, the ends of the roots would be put a little higher than the bottom of the tree; then a little loam would be thrown into it, and then some water; then they lift it up and down, and then threw in some more loam and filled it up. There were one hundred and twelve set out, and there are about a dozen now alive. On Chester square, between Washington street and Tremont street, thirty-seven were set out, and there is now but one alive out of thirty-seven. In East Chester park, between Washington street and Harrison avenue, there were thirty-six set out; but five are now alive, and the rest have been cut down and carried off. Then, near the square — I had a good deal to say to Mr. Galvin — they put out plants. They were very poor plants, not fit to be set out, but a good many were put out. A good many died; and the best live plant we had there was the princess feather, which is an annual, and they were very poor indeed.

Well, then, the men that he had there at work didn't work one-quarter of the time. He had four men. His foreman did scarcely anything, though once and a while he did something. There were four men, and it took them about four days, and this year he sent two good men there, and one man cut the lawn and the other trimmed it. One of those men was discharged. I don't know whether it was because he worked so well. He said he was turned out to give a place to somebody else.

Well, then, this year there were about fifty maples — forty-five to fifty rock maples — set out. In the first place, there were about thirty of those tall poplars. They live by a slip. Three of them are dead, however. There were fifty rock maples set out, and while the tops had been cut off, most of the branches left were half dead, and a leaf couldn't come on them. I took one of the branches and carried it to Alderman Clark, and told him it was a waste of money to do it in that way. Last year they only dug a little hole, and this year they took out all the old loam, which is about two feet deep, — and that is about all the loam in this park what there is in those post-holes, — and carried it back. I said to Mr. Clark that the trees wouldn't live; and he said Mr. Howes had the care of them. I carried it to him, and he said that the man who sold the trees said if they wouldn't live he wouldn't charge for them. I think there may be half a dozen of those trees now alive.

Then I took a walk — as I saw a piece in the paper — over to Commonwealth avenue, to the further space next Chester park. There are fifty-four maples set out next to the park, twenty-two of which appear to be of the same height and of the same lot as those on Chester park; and I should think they were all dead. There may be a few of them that will live it out, but I don't think any of them will be good for anything.

Now they say that those trees in Chester park, and I believe that Mr. Galvin said, the reason they died last year was on account of the roots of the poplars. If the trees had been well set out there would be no trouble about making them live, notwithstanding the roots of those poplars. I complained to Mr. Galvin, and to others, of spending so much money where there is no kind of use at all. Well, this spring, on account of the complaints of not giving us

good ones, they dug around the roots a good deal. I wanted them to leave about eight feet from each tree, and let it be grassed, so as not to disturb the roots, as the elm root runs very near the top of the ground. But finally they concluded — or before they did that they spaded over those borders and spaded close to the trees from six to twelve inches deep, and, I should think, cut off all the roots that came in the way. They apparently chopped off all that came, perhaps, within a foot of the tree. Those ends will never heal over. I went to Mr. Galvin and told him what they were doing, and he said it was all right; got him to go up there, and he says he told the man to stop; but as soon as he got away, his foreman — I think he lives in one of his houses — kept on cutting them off, which I think is very injurious indeed.

Well, then, there are the trees in the street on the Common, which are very badly trimmed. Instead of cutting off the branches where the upper part is near the tree, and slanting down so as not to have them project, they are cut off from one to two or three inches from the tree, and sawed square with the limb, which leaves a long space to heal over, and if it is a large branch it will never heal over. Up on the monument grounds there are two or three branches cut off perhaps an inch from the tree, and square with the branch, which should be cut nearer the top and two or three inches nearer the bottom. They are painted over very nice, but they are not healed over, but rot, which is a great injury to the tree. If the branch rots it makes it very unsightly, or it may be death to the tree.

Then there are the young trees, the new trees set out; they are not taken care of at all, according to my idea. After the branches have had one or two years' growth some of the lower branches want trimming and cutting off. You want to cut off the branches when the trees are small, and if they are not cut off they get down in the way. You will find those set out not trimmed in that way.

There are one or two trees near the Park-street Church, on Tremont street, one or two small ones, that need trimming. Then near the street there are large trees partly dead. For instance, in East Chester park, I think it is a disgrace to see such trees. They are half dead on one side, and last year the tops were sawed off to put the bird-houses on the tree. Then through the streets there is a great deal of money laid out to cut off dead branches, and where they cut off a branch, some of them a foot long, from the body of the tree where they should be cut down. But those trees are three-fourths dead; you cannot revive them, no matter how much you cut them down. Yet, in Chester park, in Chester square, and on the mall of the Common, Mr. Clark says you cannot make trees grow there. But I told him, if you cannot make them grow don't set them out. In Chester park there is about six inches of soil filled with roots, and then six or eight inches of gravel above it. I can make an elm grow in five or six years, but you will not find a healthy elm-tree grow on East Chester park, and there is no use setting them out there; and the committee and Mr. Galvin know that there is no kind of use setting them out there.

The CHAIRMAN. — What has been your experience in setting out trees?

A. I had a place out to Wellesley, about forty acres, and lived there about twenty-four years. About five years ago I sold it. My experience in setting out maples is that there is not one dies in a hundred; and, as for elms, I don't know as I ever lost one, and I have set out many. If you cut off an elm with the limb slanting downright it heals over very quickly; and if it is cut the other way it never heals over.

Q. In cutting lawns don't you find in employing men that there is a great difference in them? — that some one man will do twice as much work in one day as any two men, and *vice versa?*

A. I know that is the case sometimes; but those four men I spoke of on Chester park, a man would take up his mowing machine and go five or six feet, and then stop a few moments; and they seemed to be killing time; but any kind of a man at all, if he had anybody to look after him, would do more than those four men did; and the man that is Mr. Galvin's foreman would go out and do other jobs for other men in the neighborhood in the time of the city. I complained to Mr. Galvin of that, but it never made any difference, and he kept the man there; and I told him the men were doing nothing, but still he kept them there. I had a good deal to say about it this year, and he did send two good men there that did a great deal of good. One of them met me a day or two ago and he said he had been discharged and had to give place to somebody else. He is one of the best men I have seen on the park at all. The foreman worked better this year than at that time.

Q. Do I understand you to say you are a resident and tax-payer of Boston?

A. Yes, sir.

Q. How long have you been a tax-payer here?

A. Thirty or forty years. It has been only four or five years since I lived out of town. I have paid five or six hundred dollars this year.

Q. Is it this year or last year that you noticed the deficiency in the setting out of the trees?

A. Last year they set out about a hundred elms, of which about a dozen are alive. There were thirty-seven of them on Chester square, and none of them are alive.

Mr. WILBUR. — It is the poor men that he complains of last year; but they are good men this year.

The CHAIRMAN. — Do you complain of the poor laboring men this year or last year?

A. The men more particularly last year. I was comparing those four men last year with doing the work in about two days that two men did in one day. I said that this year he sent two good men, and they didn't need looking after. His foreman worked better this year. After digging around the trees, they finally seeded down those borders and cut out some places, and then they had only one there, Mr. Galvin's foreman, and no one else, and he has been better this year.

Mr. RUFFIN. — In your judgment was the death of the elm-trees

caused by the improper setting out? — or was it that the trees were not good?

A. The trees had been ordered, I think, on to the Common. I don't think the trees were good. I should suppose some of them would have lived longer if they had been good trees; but no tree will live good if set out as they were. If they had been good trees, there would have been no trouble in making them live two or three years.

Q. It was the improper manner of setting out?

A. The most I can say about that is, the hole was dug dishing, as I call it; lower in the middle. Some of them were put down six inches farther than they ever grew before, and they threw on some loam, and they threw in some water, and then jumped the tree up and down, and then trod it down. I call that an improper way of setting them out; the whole of the loam ought to have been taken out. Then in the summer they watered those trees. A year ago it was a little dry, and they so watered them that it would stir the tree a little, and turn some water on top; and before that water got soaked off they would dig up the soil and make it all into a paste, and that would exclude the water.

Q. What were those trees worth, providing they were good trees?

A. They were pretty good-sized trees, but you would have to pay more for a tree of that size than you would for a smaller one; but a small tree of one inch in diameter would be better, and make a better tree than one of two inches. The way I set out trees is to dig a hole clear down, and fill it up with good loam, and make the middle of that hole higher than the sides. Then I set it out carefully, and fill it in at the sides. I comb out the roots with the fingers, one man holding the tree, and the other combing out the roots with his fingers.

Mr. BURKE. — Would a tree of one inch in diameter stand a better chance among those poplars than a larger tree?

A. It would stand a better chance among the trees, but no elm would live if you set it out in that way. It is no use to put it out. I don't know but those poplars might do it some harm.

Q. Do you see any objections to allowing those poplars on the park? Any objections to having those poplars there?

A. I do, because I don't like their looks. I would cut them all down, every one.

Mr. VOSE. — I understand you to say in your judgment no tree will grow there, no matter how carefully it is set out?

A. I will say the tree will grow for three, four, or five years, but after that an elm-tree wouldn't stand.

Q. I understand you to say that in a soil of such a character it wouldn't grow more than three or four years?

A. I will tell you. There are holes dug four or five feet in diameter, and filled with loam; they would dig them up this year, and put more loam in. You set out a tree in that space, and there is plenty of room for it to grow in three or four years. There is no reason why a tree set out in that way shouldn't grow. I think there is no loss from the trees which died last year; but they are

set out every year, and last year and this year, and if they are set out, they should be set out to live, or so as to live.

Q. How should you set them out so as to make them live?

A. You can set them out to make them live three or four years, and to make them live you must take all the sand out two and a half feet deep, and have good loam put in, and have good water, and that will make them live.

Statement of George P. Baldwin.

Mr. Baldwin. — I don't rise to make any extended remarks, but I do feel as though perhaps there should something be said in reference to the cause of the depreciation of the property in East Chester park. I don't profess to be a scientist, but I believe that the condition of the atmosphere has something to do with the growth of the trees there. I believe what Mr. Ward says, and it explains it to my mind, that the probable reason the trees do not grow is that the roots of the poplars prevent their growth. It occurred to me that it must take a pretty rugged tree to stand the stench in that neighborhood from the old Roxbury Canal. I am perfectly surprised that wealthy gentlemen, as certainly there are, have continued to live in that locality so long, and it is no wonder that their real estate, under those circumstances, will bring so little. But if those gentlemen will wait a little while until we get good sewerage, there will be no trouble about the appreciation of property there, and in localities in other portions of the city. That is the way it looks to me. The nuisance of the Roxbury Canal is intolerable, and I think gentlemen will agree with me in that particular.

It is proper for me to say what my experience has been, and I presume that many citizens of Boston feel the same. There isn't a city in this Union that can boast of such a beautiful display of plants. I don't speak of their magnitude, but of the taste displayed in their cultivation. I have taken great pleasure in accompanying strangers and travellers and others, who have visited foreign lands, and who have seen about everything which can be seen of public parks throughout the world; and I have heard men say, that in the month of June, and so along through the summer, our Public Garden was the finest and most elegant spot of its size in the world; and without any attempt to give an opinion as a horticulturist or a scientist, to my eye, without any particular cultivation, I think that the taste displayed there should give some person, the City Forester or some one, and does give him, a great deal of credit.

Now, I know a gardener who is employed by a private gentleman who owns an elegant estate, and who receives three or four thousand dollars a year. As I understand, we pay our City Forester only twenty-five hundred dollars a year. Mr. Galvin may have weaknesses in some particulars, but I say, give him credit for what belongs to him. If you can take any city in the Union with the same number of parks, — taking the Public Garden,

Boston Common, Chester square, Franklin and Blackstone squares, and the parks in South Boston and Roxbury, — and if you can find an equal number of parks better kept in this world, I would be glad to hear it.

Mr. WEBBER. — Do you include East Chester park?

A. I include East Chester park, which the gentleman says looks no better than old Fort Hill, which is not true; and the gentleman, from his own common sense, knows it. I say it is a libel upon the City of Boston to say that East Chester park is in as bad condition as Fort Hill was, shortly before it was taken down.

As to the putting down of trees, they may die; but my own impression is, that the cause has been given here in the testimony of Mr. Ward. I have ridden through East Chester park a good many times during the past year, as well as in other years, and I think it is a very pleasant-looking place; and, were it not for the atmosphere which you encounter there very often, I should suppose it would be a very desirable place to live. But it is simply a wonder that the property has not depreciated more, under the circumstances, than it has.

While I am up, I might refer to what has not been referred to. I see a disposition in the papers to complain of this committee for its junketing and extravagance of that sort; and I don't think the public realize, as a whole, that this appropriation of sixty-five thousand dollars has all to be spent in a few months. I don't think the community realizes the extraordinary expenses that have come upon this committee this year on account of the Army and Navy Monument. In regard to the extravagance in junketing I think they have been very moderate.

So far as this persecution is concerned, it will make them more popular than ever. It is the weakest kind of persecution in the world. The result will be that if those men are up for election next time they will get a larger number of votes than they ever got before. The public know that so long as we run an unpaid City Government we shall have junketing.

I noticed that Mr. Webber spoke about the character of the men on the force. I can see how Mr. Galvin, with his numerous affairs, must have and will have men who are not first-class.

There is no question but too many men are recommended to Mr. Galvin by various citizens, and they are sometimes mistaken. A man's sympathies are very often enlisted by men who are in very poor circumstances. As a matter of charity I think it is better to get work out of those men than to have to support them at the public institutions or some other place. For my part I can see little evidence in the charges brought against this man. I haven't any doubt that if those gentleman who came from East Chester park had approached the man as they should have approached him, I think they would have found that the efforts of the committee and the superintendent would have been directed to giving them what they reasonably asked.

The CHAIRMAN. — Do you live in the neighborhood of Chester square?

A. I don't reside in that neighborhood, but on Tremont street. Perhaps three-quarters of a mile from there.

Q. You have visited those localities often?

A. Very often. I ride out Blue Hill way, and almost every day I ride through East Chester park. From what I have seen of that locality, I don't think I am mistaken in regard to what I say of the comparison the gentleman made with Fort Hill.

Alderman Viles. — You think the City of Boston has the best parks in the world; do you think that sixty-five thousand dollars is enough to take care of them?

A. I don't profess to be an expert upon a question of that kind, but I think myself that sixty-five thousand dollars, as I understand that is the appropriation, doesn't seem to me to be an extravagant appropriation for the work it is to accomplish. If I understand aright, the appropriation is as small this year as it has been for many years, if not smaller.

Q. I believe so.

A. And certainly the parks have looked as well, if not better, than for many years.

Mr. Hobbs. — *Resumed.*

Mr. Hobbs. — Mr. Baldwin spoke of Fort Hill. I have lived in Boston forty years, and lived under Fort Hill for a number of years when it was in its best times. Now he says there is no comparison. When Fort Hill was taken down — and I helped to take down a part of it — those elms were good and fine large trees; and I say that in East Chester park there is not an elm-tree but that is a disgrace to Boston. If you take any of those foreigners to see the parks of Boston, don't take them to Chester park.

Mr. Galvin. — How much has your property depreciated on account of the trees not growing there?

A. Well, I want to sell my house, and when I get a person there to look at it, and he sees those trees he says it is neglected by the city. I don't know whether it is Mr. Galvin's fault.

Q. In your estimation how much has your property depreciated?

A. I paid thirteen thousand dollars, and laid out three or four thousand more; and I wouldn't get seven thousand five hundred.

Q. Do you acknowledge that there has been good care taken of Commonwealth avenue and those places?

A. Yes, sir, that is what we complain of.

Q. How much has property depreciated there?

A. I don't know.

Statement of Mr. Galvin, Superintendent of Common and Public Grounds.

Mr. Galvin. — I have refused to plant trees there, knowing that I cannot make them grow. I put a proposition to my good friend, Mr. Webber. I cannot make them grow, because, as my good friend remarks, there is gas in that ground, which kills the fibres

of new planted trees; and it is a falsehood when Mr. Webber says that the elm cannot live in East Chester park. I will bring them and show as handsome trees in East Chester park as in any part of Boston. Why don't they die too? It is because they got established before those gases came. I repeat it again, that you cannot make trees grow there.

The CHAIRMAN. — Did you ever notify the committee of that fact?

A. I told Mr. Webber so, and some members of the committee, and I repeat it now.

Mr. RITCHIE. — Does the gentleman refer to Chester park or only a part of it?

A. Any gentleman conversant with trees knows that, say, for instance, if you establish a tree in the centre of this room, no man can take and plant a young tree within forty feet of that tree and make a successful planting of it. I have had as much experience in the planting of trees as any man in this room. I have planted thousands of them, and I have had as much experience in growing and cultivating trees as any other man in Boston, although I am a modest man, and don't want to push myself forward.

STATEMENT OF JOHN RITCHIE.

Mr. RITCHIE. — I don't want to enter into the question that has been raised, whether they can be made to grow there or not; but then I will state that they do grow in one part of that street, whereas they don't grow in another part. Before coming here I took the trouble to go through the whole avenue, from Columbus avenue to Harrison avenue, and count the trees and stumps, and I can give you the percentage of trees and stumps in each section of that street, and show you by those figures that in one portion of the street the trees don't grow, — I don't know whether they can or not, — and in another part of the street they do grow. I can give you the figures, as I counted them.

The number of trees in the section of Chester park from Harrison avenue to Washington street: there are in all, trees and stumps, sixty-seven; the number of trees standing is forty; trees cut down twenty-seven; that makes a percentage of forty per cent. in that small section; that is what doesn't grow; whether they can or not I don't know.

Then from Washington street to Shawmut avenue, a short piece, twenty-eight trees are standing, and there are six stumps, making thirty-four, giving eighteen percentage of stumps.

There is in the longer section from Shawmut avenue to Tremont street,—I counted all the trees in the separate park section, and then two on the sidewalks that encircle the square; but these figures don't include the trees within the enclosed railing, which are in good, flourishing condition, — counting that section from Shawmut avenue to Tremont street, the number of trees standing is seventy-five, the number of stumps, eight; total trees and stumps, eighty-three; eight stands to eighty-three as less than ten per cent.; so in that section from Shawmut avenue to Tremont street there is less than ten per cent. of stumps.

From Tremont street to Columbus avenue I counted forty-four trees, and no less than eight stumps, making fifty-two trees and stumps; percentage of trees and stumps, fifteen.

Then if you sum up all the trees and stumps standing from Harrison avenue to Columbus avenue, there are two hundred and thirty-six, with a percentage of stumps of twenty. The percentage of stumps from Harrison avenue to Columbus avenue is twenty; and in that section between Harrison avenue and Washington street the percentage is over that.

There are forty trees that encircle the square proper, all in good condition, and some of considerable size, and seem to have been growing several years, and so within the railing they seem to be in like manner in tolerable good condition; but in the street portion of the street, you find a good many young trees and a good many stumps. I don't know whether they can be made to grow or not, or whether there is any fault in the management of the trees; but the fact remains that they do not grow as they should. In the section from Harrison avenue to Washington street there are eight good-looking trees out of a total of sixty-four trees and stumps. Those eight are a credit to the street and the government, and the others are a disgrace.

Mr. Galvin. — Do you feel interested in any other squares at the South End?

A. Of course I feel interested in the city and in its trees, and in every department.

Q. Did you take any notice of the trees on Concord square?

A. When I came down here I only examined the trees in our own street.

Q. Then you didn't notice the others?

A. No, sir.

Q. And you are not interested in any others?

A. Yes, sir.

Q. If you had travelled around you would have found a number of dead trees around Concord square.

A. I cannot deny it or certify to it. I came here to give a few facts in regard to that street.

Mr. Wilbur. — Do you think there is any neglect, or anything that could be done that has not been done in regard to taking care or the setting out of these trees on the part of the Superintendent of Common and Squares?

A. I don't know, sir. I have been away from the city a good while and have not paid as much attention to the matter as a citizen should, and have not given it my personal inspection, and I could not say where the fault was. But I can merely look at the fact, and say such is the fact; that the trees set out in that street do not grow as they should. I do not find the same fault with the trees set out on Commonwealth avenue; but the trees set out in that street are not creditable to the city, and the condition of the trees is not creditable to the city. I cannot say just where the fault is.

Q. According to your figures, the percentage is greater from Harrison avenue to Washington street than in any other part of the square?

A. Yes, sir.

Q. Do you attribute it to any impure gases in the air?

A. No, sir. I attribute it to the improper setting out of the trees; then it is probably also the case that the soil there might be improved, and larger room might be given to the tree when it is given a start.

Q. Do you live on that park?

A. Yes, sir.

Q. Between Washington street and Harrison avenue?

A. Between Washington street and Harrison avenue.

Q. And you never had any complaint to make from the Roxbury canal?

A. Oh, yes, sir, some; but I cannot say that it will hurt the trees; it may or it may not; it has hurt me, and I don't like the smell.

The CHAIRMAN. — Is it bleak and cold from Washington street to Harrison avenue?

A. In the winter, sir, we are not so exposed as we are in the summer. In the summer we are exposed to the north-east winds coming over the Back Bay; but in the winter the cold wind is from the north-west, and that is cut off by the houses.

Q. And there is no reason by which you can account for the greater percentage of dead trees in that locality than in others?

A. I have always supposed that the same care was not given to those localities as any other; for instance, Commonwealth avenue and Chester park, and Union park. I think more care is given those parks, and that is the way I have explained it; but I have not investigated it very thoroughly.

Alderman VILES. — It has been stated that Mr. Galvin's men merely killed time. As you live on the square, have you ever noticed anything of that kind?

A. No, sir; I have never noticed it.

Mr. BURKE. — Did you see any of these trees while they were being set out or planted?

A. You mean for years past?

Q. While in the process of planting these trees, or setting out, as they call it.

A. I probably have. Yes, sir; I have seen it in the last year.

Q. Are you familiar with the process of planting trees, whether it is done right or not?

A. No, sir.

Mr. GALVIN. — You said it was for want of proper care that the trees died out?

A. No, sir; I declined to pass judgment upon that. I said it seemed to be so — it might be so.

Q. At another time you stated that it might be so?

The CHAIRMAN. — As I understood, he said he supposed the same care might not be given to the trees planted between Washington street and Harrison avenue as was given to those in other sections.

A. Yes, sir. I said that, knowing the facts, I had reason to suppose that the same care had not been given them.

Q. But it is merely supposition?

A. Yes, sir.

Mr. Wilbur. — You are probably a large tax-payer?

A. Yes, sir; some gentlemen of my name are.

Q. Have you ever had any reason to complain of the expenditure of money for taking care of the public grounds and squares?

A. Well, sir; after reading the reports in the papers, I think we might complain of the way in which the money is spent.

Q. You believe everything you see in the papers?

A. No, sir; I use my own judgment. I believe that report, however.

Q. But have you any reason to complain or fault to find, or have you any evidence that you can show that there has been any mismanagement of the expenditure of money, — that it has not been judiciously spent?

A. Well, sir; I think the figures I have given show that there has been something bad in the management of that street. While twenty per cent. are stumps, and while in one section there are only eight trees that are a credit to the operations of the government that set them out. That is what I said, and I do find fault with that. There are forty per cent. of stumps in the whole section, and in that section there are only sixty-seven good trees.

Q. But you cannot account for the space between Harrison avenue and Washington street, or for the difference in that space and the part between Shawmut avenue and Columbus avenue. You say the percentage is greater between Harrison avenue and Washington street — the percentage of dead trees — than it is between Shawmut avenue and Tremont street?

A. Yes, between Shawmut avenue and Tremont street, and there the percentage is less.

Q. But you cannot account for it?

A. No, sir; I cannot account for it. That is what this committee is sitting for.

Q. Do you attribute it to the improper management of the Common and squares, or to something else?

A. I merely suppose that like judgment and like care and management are given to other streets in the city.

Statement of George A. Shaw.

The Chairman. — Are you a citizen of Boston or of the outlying wards?

A. Yes, sir, and have been for forty years. I did not come here to make a speech; but since I have sat here and heard this examination, a great many ideas have come to my mind, because I was a member of the Committee on Common and Squares for some time in former years, during which time Mr. Galvin was the City Forester; and consequently I had a great deal to do with him until the last two years. I am not a member of the present Council, and I was not a member of the committee last year.

With regard to this question of the planting of trees, I have

taken very great interest in it, for a great many years, as you well know, sir, for I have been with you on the Committee on Public Parks. I have made that subject a special study for six or eight years, and I have had occasion several years to speak in regard to public parks, and I could hardly sit still and hear the statements made, which are entirely untrue, not intended to mislead the public. This is a public hearing, and what is said and done here goes before the public and the tax-payers; and not only that, sir, it goes before the whole country, because Boston is looked upon as the Athens of America in more respects than one; and, as I said, whatever is done in regard to public parks goes abroad to the world.

I wish to say here that the common remark throughout this country, and throughout the great cities of Europe, is that there is nothing exceeding the beauty of the public parks of Boston, except it may possibly be one of the large parks in Paris; and that many Englishmen and Frenchmen, to my certain knowledge, have said in my presence that they knew nothing superior, and had seen nothing better taken care of in the public parks of the world than the public parks of Boston.

Now, while for two or three years on that committee, it was a common complaint of people, with regard to the expenses and management of the parks, to members of the City Government; and new members coming into the City Government have most always come in with complaints, believing that they could introduce reforms. It has generally been the case that after a few months' service upon this committee, or a few months after they have been members of the City Government, they have come to the conclusion that they were entirely mistaken. I remember several instances where members thought that they could reduce the amount of our appropriation made in the early part of the year, to be applied to Common and squares. I have several of those individuals in my mind. I have invariably found that when their ideas were accepted, and the amount of the appropriation was reduced, before half the year expired they would themselves move for an increase of the appropriation. I have several of those gentlemen in my mind. Members of the committee now present will remember them.

Now, the members of the committee this year, with one or two exceptions, were almost strangers to me when I first met them here, and I desire to say that I believe that no better committee, if as good a one, was ever before appointed to take care of the Common and squares. I believe they have been specially vigilant, and have attended to their business in season and out of season. I know their work, and have observed it. I have seen their work upon the the squares, because I have felt a continued interest in it, as I said before.

The CHAIRMAN. — Have you read their report, and the details?

A. I have, sir.

Q. Those details in regard to the bills of H. D. Parker & Co.; how do they compare with previous years?

A. I think it is the most ridiculous and foolish criticism that

can be made. I believe and know that the expenditures for junketing are far less than when I was a member of the committee; and I wasn't a more modest man than anybody else. I see nothing to complain of. The idea of charging the Superintendent with eating a dinner which cost eleven dollars! It has been explained. Does anybody believe that John Galvin eat eleven dollars' worth? By direction of the chairman of the committee he invited several gentlemen to dine with him after they had been viewing the Common and squares. I am not here as his defender. I have not exchanged a word with him. I am not here to defend the superintendent.

Now, in regard to this matter of planting trees. I have been a student with him during the time I was upon the committee, because I guess there isn't a man in the world who can say that I didn't attend to my duty; and I really believe, from what I have heard and learned from him, and learned from other sources, and learned from my own experience, that no man can do better in regard to planting trees than he can. He has frequently told me that trees referred to in certain places here would not grow; and that I know. He has told me that several times; and during the last three or four years he has referred, very distinctly, to the smells over this district as affecting the growth of trees. That is patent to me, and that is what struck me as the proper thing to say before this committee, and that all citizens of Boston should understand it. I have scarcely anything else to say. I say and repeat the fact, from the knowledge I have obtained with regard to the duties of the committee, that I have never seen a committee that has been more vigilant in attending to their duties than the present Committee on Common and Squares.

Mr. Hobbs. — *Resumed.*

Mr. Hobbs. — It seems to me that trees grow in East Springfield street, and in the City Hospital grounds, and that there has been no trouble with them, so far as I know. That square is very near, and I do not know why they will not grow in East Chester park as well as there.

Alderman Slade. — I should like to ask Mr. Hobbs, as he lives on this park, whether he knows or thinks there is any difference between the soil of Chester square and Chester park? There seems to be, if I understand it right, a sort of jealousy on the part of people living in East Chester park, that considerable is being done somewhere else, and nothing there; and that we were at work all over the city, but were not doing anything there. I should like to ask him whether he doesn't know that the soil is very much better in the square than what it is in the park.

A. West Chester park was filled up with some decent gravel, and loam was put over it. Trees seem to grow there, and we had no trouble about it. If there are any gases which affect the growth of trees on Harrison avenue, I don't know about it; but I don't think it affects the whole of the street.

Q. What I wanted to show was simply this: the foundation of West Chester park has a very much deeper fill from the mud from what it has in East Chester park.

A. I have had occasion to lay a drain to enter a sewer. You go down four feet solid, and then come to the sewer. I think there are no piles there except in one place. You dig down about five inches, and you come to the hard clay. I don't know that there is any piling.

Mr. WILBUR. — How is it, Mr. Hobbs, out at Harrison avenue?

A. Mr. Bradley, the Superintendent of Sewers, has a house on one side, and it is on solid clay.

Q. That is on the west side of Harrison avenue?

A. It is on the north side.

Q. How is it on the north side?

A. I think there are no piles there, but I won't be sure. I know there are none on my side.

Q. You don't know, then, what the depth is, taking it on the south-east side?

A. No, sir; Mr. Ritchie's block is there, but I don't know whether he drove piles or not. I don't think at either end of the block.

Q. Have you never noticed after digging down there, — have you had any occasion to dig down six or eight feet, — coming to solid black mud?

A. Where I dug down four feet I came to solid clay.

Q. But you didn't go beyond that clay?

A. No, sir; I merely laid a drain.

Q. Wasn't the drain dug out from the channels at the time it was filled?

A. No, sir; it is the natural soil. If you will go up to Washington street you will find the same.

STATEMENT OF DANIEL O'BRIEN.

Mr. O'BRIEN. — I came here, Mr. Chairman and gentlemen, — I was at work in the market this afternoon and heard that there was a hearing this afternoon, and that all those interested in the Common were allowed to come, and I don't know whether the investigation is for former years or only for this year.

The CHAIRMAN. — We are investigating the matters of this year.

WITNESS. — But you give people the privilege of testifying if they know what they have been doing in former years?

The CHAIRMAN. — I simply understand that we are here to investigate the doings of the committee for the present year. We are not a committee to go back to what has happened before this year.

WITNESS. — I don't mean to go back for more than two or three years and the present year; but I didn't come here with figures and papers; but I came here to show you that the bills charged to the Council, and as on the treasurer's books, — I can come here and give you testimony that will satisfy you that the Common, as it

has been conducted, is the most corrupt department in this government, or in the world, and they were no more corrupt in New York; and I can give figures and dates which will satisfy all of you, gentlemen, and myself, how the money was expended and the labor and work carried on, and all the doings on the Common. I have been at work on the Common this year and worked three days, and Mr. Slade put me on this year. I worked there last year, and Mr. Viles put me there. I have a personal knowledge of the workings of the Common, which I would like to give you, gentlemen, and the public at large, which are facts which are needed to be heard; but I am not prepared to give it, because I am not prepared and shall have to refresh my memory. But I am prepared to give the workings of the Common and the committee on it. I think we can give figures and facts that will show a waste of money. I do not say who it will fall on, — the waste of money, — but I think it will fall on more than one. I think it is most loosely conducted.

The Chairman. — What opportunity have you had of obtaining any knowledge of that kind?

A. By being a laborer on the Common and working there and seeing all the business, the stuff delivered, the pay-rolls, what the men received at work, how the men worked or played or loafed, whether they were skilful or unskilful. I have a perfect knowledge of it. I have been there and know it. I will say nothing of this only just what I know.

Q. What do you know about the Common and squares this year?

A. I know a few facts, and I have got to look over the pay-rolls, etc., and see the charge in the report about incidentals and some other things, which I don't think are charged right.

Q. Can you mention any single item? Is this charge general, or have you in your mind any one item that you can point to?

A. One thing, — I believe he charges twenty-seven dollars for flowers, tickets, and —

Mr. Ruffin. — What three days were you at work?

A. Three days in May or June.

Q. Can you point out an irregularity?

A. Yes, and a few more facts about the men which has been working there, and that has been working in other parts of the city, and the city has been paying them. I am not prepared to do it, as I shall have to bring other men to substantiate it.

Q. Is there anything in that report that is irregular?

A. Nothing irregular that I know, but I know that in former years I know what has been the practice there, and I suppose they haven't altered it this year from former years.

Mr. Burke. — What was your employment upon the Common?

A. Laborer, like any others.

The Chairman. — You say Alderman Slade placed you at work there this year?

A. Yes, sir.

Q. And you worked two or three days?

A. Yes, sir.

Q. And why were you discharged?

A. I was discharged with about twenty more, and I went to Mr. Galvin, and I saw him next day and asked him why he discharged me. He said he hadn't discharged me, and I went to the foreman, and he said he discharged me because the Superintendent of Common ordered him to. I said that Mr. Slade told me I should have two months' more work, and said put me back; and he said he could not. The next day or two, or three days, although they said there was no work, ten or twenty men went on there.

Ald. VILES. — He has made some pretty broad statements, and if he can put them in writing I think he ought to have an opportunity to do so.

WITNESS. — I can prove it, and show that this investigation is a proper thing to have.

Mr. BURKE. — What is your object in appearing here to-day?

A. No object at all; but some gentlemen who knew I was working on the Common for a few years, and they wanted me; as this is a public hearing and investigation, they said, you ought to go up and tell what you know. I have no spite against Mr. Galvin or anybody.

The CHAIRMAN. — Who were those gentlemen who advised you to come here?

A. A man named Sullivan, who works in the market. He knows I worked there, and I suppose he heard me referring to something that has been carried on, as I had mentioned it to a few parties.

Mr. RUFFIN. — Where do you work now?

A. In the market.

Q. Who for?

A. Mr. Stearns.

Q. How long have you been in his employ?

A. Three years, if not four, from April to Thanksgiving.

Q. You were not to work for him when you were on the Common?

A. No, sir; I always go upon the Common, for the last four years, from April to June. I can go there and work, for I am willing to work, as I had a wife and children.

Q. Why did you leave him when you went to work upon the Common?

A. I didn't leave him. He isn't raising stuff this year as usual, and he had no work for me.

Q. You went to work for him before you went on the Common?

A. No, sir; farmers don't bring anything in in summer. He raises spinach, and vegetables, and other stuff.

Mr. BURKE. — How far back does your knowledge of corruption in this department date?

A. Three years certainly. By looking over the treasurer's books I might find four.

Q. Did you ever say anything about this matter before?

A. Well, I did, I might have mentioned it.

Q. Not publicly?

A. No, sir.

Q. Then you have only been employed three days this last year on the Common?

A. That is all.

Ald. VILES. — Where do you live now?

A. On Unity street.

The CHAIRMAN. — How long were you employed last year?

A. About six weeks, and I think I was discharged four different times in that time, and taken back again.

Q. How long did you work there the year before?

A. Six weeks or two months; and the year before about the same.

Q. That would make four years. I thought you said three.

A. I said three, and if I looked at the books I might find four. I worked last year, and spaded on the Public Garden, and he discharged me; and I went and told Ald. Viles, and he said — and my memory is very clear — and Ald. Viles told him there, you found no fault and you put him back; and he put me back, and he put me at the same work he said I couldn't do.

Mr. WILBUR. — Did I understand you to say you wanted to refer to the treasurer's books?

A. Whether I have been working three or four years?

Q. Whether you want to refer to the treasurer's books?

A. Yes, sir; for I could give details. If you confine it to one year I can do no good; but if you want to close it off this year, you close off all investigation and none will feel it.

Q. What do you expect to find there? — what particular thing do you refer to?

A. Wasteful destruction of trees, men working in private gardens and paid by private individuals, and some one receiving it — I don't know. Contracts let out to furnish mean stuff to the city, and it delivered to the city and paid for.

Q. Do you know these facts?

A. Yes, sir.

Mr. BROWN. — Have you got any of these facts to bring against any member of the committee or the superintendent of this year?

A. Yes, sir. The facts, I suppose, would come against some of the committee, as there are some on the committee of this year who have been on the committee for three years, and there is the same superintendent. And the manures that has been delivered, if I can look at the bill and see what is there charged — I suppose when a contract is given out to deliver manure, I suppose when people take that contract they will deliver it themselves. Whether I am right or not I don't know.

Mr. RUFFIN. — Do you expect to get this information from the treasurer's books?

A. No, sir; I have it in my own head; but there may be a few or many matters, and as facts is facts the books will say so. I suppose the books will back me up in my statement, and if I am right they will show it.

Mr. BROWN. — I don't think the books will show where people labored.

A. I believe they will show where a man worked very little,

and a man might loaf around the city and be paid for three days and work one.

Mr. WILBUR. — Do you know that to be a fact?

A. Yes, sir. I know it to be a fact, personally, and I can prove it beyond a doubt.

The CHAIRMAN. — When was that, — this year or last year?

A. Well, it was hardly this year, I thought, but two years ago I think it was.

Q. You say this? You think you can show it?

A. No, sir. I can by referring to them. I am not certain that the date is positive upon the books.

Mr. SMARDON. — I would like him to give that party's name who has been paid for two weeks when he has worked only one?

A. I didn't say one week or two; but I said a man might be paid for three days and work one.

The CHAIRMAN. — Will you please give the name?

A. I might be wrong. About the first name I am not certain. But I know the man and I can refer to him. I might not know his first name.

Mr. RUFFIN. — What name do you know him by?

A. I know him by the name of Reardon.

Q. What is his first name?

A. John or Patrick. I don't know for certain.

Q. Is it John or Patrick?

A. I am not certain; I may be mistaken.

Q. Where does he live?

A. I don't know personally. I don't know where he lives. I think it is at the South End.

The CHAIRMAN. — Was he one of the laborers on the Common?

A. Yes, sir.

Mr. VOSE. — Is it that man that sits there? [Pointing to the audience.]

A. No, sir; I know that man.

Mr. WILBUR. — Has that man been in the employ of the department?

A. Yes, sir; I think he has been in the employ of the department five or six years.

Mr. SMARDON. — I believe the question was asked why this man was discharged, and he hasn't answered it.

A. Yes, I did. It is the custom to discharge one or two or twenty-five or thirty men one night, and take on some the next day.

The CHAIRMAN. — Was there any reason given for your discharge?

A. No, sir; I was discharged and put on again; and it is a notorious custom with Mr. Galvin, and he discharges one man half-a-dozen times.

Mr. SMARDON. — Did you go to work the first or middle of the week?

A. I think the first of the week.

Q. You don't know?

A. All I know is I worked and was paid for it.

Q. Were you discharged in the middle or the last of the week?

A. I think on the 17th of the month; I didn't take any notice of it. Mr. Galvin told me the Common was full, and had too many men, and he hadn't ordered me to be discharged.

Q. What time were you at work for Mr. Galvin?

A. I think in the month of May. I don't know for certainty. Mr. Slade put me there.

Q. I think I understood you to say you had a good memory?

A. Yes, sir; but when I don't take notice of anything my memory don't bother about it.

Q. Don't you know whether it was the first or last of the week?

A. Yes, sir; but I didn't bother my head about it.

Q. Were you discharged on Wednesday?

A. Yes, sir; the same as others were.

Q. Is it usual to discharge men in the middle of the week?

A. No, sir; usually on Saturday.

Q. What was the reason you were discharged?

A. No reason at all was given except that they didn't need any more help at present.

Mr. Wilbur. — You say you can prove and bring testimony to show corruption in the Department of Common and Squares this year?

A. Yes, sir; a little.

Q. To any extent?

A. But the bulk of my testimony is for three years, and as for the corruption, I consider it very deep.

Q. I should like to have you answer the question.

A. I cannot answer it right away. I could not give the day and date now.

Q. Have you any knowledge of corruption this year?

A. Slightly. I only worked there three days.

Q. How long were you in the employ of this man?

A. Three days.

Mr. Smardon. — I would ask Mr. Slade if he put this man at work on the Common?

Mr. Slade. — I think I sent a note to Mr. Galvin that if it was convenient for him to put him to work I should like to have him.

Mr. Smardon. — Do you recollect when he was discharged?

Mr. Slade. — I recollect he came back to me in a few days, and stated that he had been discharged and wanted to go back.

Mr. Smardon. — Did you undertake to get him back again?

Witness. — He did not.

Mr. Smardon. — Do I understand the alderman to say whether he did or did not?

Mr. Slade. — I should think not.

Mr. Smardon. — For what reason?

Mr. Slade. — I don't know any particular reason; but I thought if a man hadn't been there over three or four days, and had been discharged, he was not a valuable man.

Witness. — I could give you some valuable information on that point. Men are at work there, and don't know anything about the Common. No work there needs skilful men, only the trim-

ming of trees and tending to the trees. Aside from that there is no skilled labor required, — only raking the dirt off it, digging around the trees, and sweeping the gutters out. But on the Public Garden there is a few men there who understand trees, and a few more who understand flowers. On other parts of the Common, and outside, and in South Boston, it is a common thing to put men to work who do not know anything about the Common. Mr. Galvin discharged me, and afterwards took me back and put me to work on work that he said I didn't know how to do. It is a common thing to discharge men and take them back.

The CHAIRMAN. — We want to understand this. You say you want further time to show certain things?

A. Yes, sir.

Q. What facts do you want to show, and how much time do you want to show them?

A. As I said that for the short time I have been there this year I have no doubt it is just as corrupt as any other year, for it is corrupt any way. I cannot give you much idea about this year, because I was not there long enough. If you let the investigation go back to other years, I can show other facts in regard to other years; but this year my knowledge is very slight.

Mr. SMARDON. — I should like to ask the gentleman if he has kept a book of these charges, and how he is going to make up these charges?

A. I should make up the charges by the books and pay-rolls, and prove it out straight beyond contradiction.

Q. You have nothing to show in black and white?

A. I will back it up by my statements; and there is things that I know. I know other things. I know of men paid by the city, and working for private parties and selling their stuff for them; and I have seen the names called, and they paid there.

Mr. BURKE. — If I mistake not, you said you could get eight or ten to corroborate your statement?

A. Yes, sir, if they were willing to come. I know they know the facts, but it is another thing to make them come here.

Q. Would you have any objection to giving their names to the committee?

A. There is one that I know is working for the city and selling other stuff for a city official. I didn't think it was hardly right, and can bring men who have seen that man doing it.

Mr. RUFFIN. — Perhaps we had better notify this witness of our next meeting.

The CHAIRMAN. — I will put the question to the committee.

Mr. VOSE. — I would ask the chairman to rule whether this committee is to investigate the Common and squares for the last year, or has this committee been confined to the present year?

The CHAIRMAN. — I am certainly of the opinion that we cannot go beyond the present year. We are investigating the Common and squares as they have been conducted under our observation during the present year.

Mr. VOSE. — That was my idea of it.

The CHAIRMAN. — My object in asking the gentleman was to bring forward facts and figures in relation to this year.

WITNESS. — But I thought the committee might report to the Council for a general investigation. I suppose the Council have power to order a general investigation? My facts are for two or three years past, but of this year I know very slightly indeed.

The CHAIRMAN. — You know, as all other citizens do, that all these things could be made public. All you have got to do is to send in your petition any time to the City Council, stating facts and figures, and then it will be investigated if the City Council think it worth while to investigate it; but, as I look upon it, the province of the committee is merely to examine into the conduct of the public squares so far as our observation goes this year.

Mr. VOSE. — That has been the idea of the committee, and that is why I asked the question. I think we are wasting a great deal of time in listening to the remarks of gentlemen about things that happened two or three years ago, and that it is actually out of our province.

At the request of Alderman Viles, the chairman read the order constituting the committee.

The CHAIRMAN. — This matter arose, and this order was passed from the fact that the Committee on Common and Squares asked for fifteen thousand dollars more than their original appropriation, and it is that fact more particularly that this committee are to investigate. If the committee desire, however, to go back for a long series of years, I certainly have no objection.

WITNESS. — I supposed when you said in the paper that any person knowing facts about the Common, it wasn't alone for this year, and that is the reason I stepped up here.

Mr. SMARDON. — I hope you will give this gentleman time to make his statements in writing. It cannot take him a great while, if his memory is so good, to make his charges against the superintendent and the Committee on Common and Public Grounds.

WITNESS. — I will guarantee to make it in writing, and will satisfy any gentleman in the Council of the charge that it has been corrupt, and also that some of the Committee on Common have had men employed by the city doing chores in their houses. I don't know whether it is right or wrong.

Alderman SLADE. — I would ask the witness why, at the time he knew all those things, whether he never told any of the committee?

A. I never did, for I was accumulating them; but I supposed that, like the Tammany ring, they would carry it on for twenty years, if they had the chance. But if I told of it the first year, they would know how to stop letting it be known, so I thought I would let them go on.

Mr. RUFFIN. — I think we ought to bring this part of the investigation out. I think it ought to be confined to this year; but I think this person ought not to go away from here with the impression that this committee propose to cover up anything, or prevent any testimony being brought before us. Let him come and show anything pertaining to this question at our next meeting.

The CHAIRMAN. — I agree to that.

Mr. SMARDON (to witness). — Did you ever make the statement

that Mr. Galvin paid you for six days' work when you worked but three?

A. No, sir.

Q. You never told a party that?

A. No, sir, I never told a party that.

Mr. SMARDON. — There is a person present who has told me that, and he is willing to testify.

The CHAIRMAN. — Do the committee desire to ask Mr. O'Brien any further questions?

Mr. RUFFIN. — Where can you be found?

A. 16 Unity street, Ward 6.

Mr. SMARDON. — I should like to have the gentleman answer that question.

The CHAIRMAN. — What is his name?

Mr. SMARDON. — I don't know; he is a stranger to me.

STATEMENT OF WILLIAM HAVLIN.

Mr. RUFFIN. — Where do you reside?

A. In Ward 8.

Q. What street?

A. Auburn street. I met Mr. O'Brien a few days after he was discharged from the Public Garden; the day he met Mr. Alderman Slade in the chamber. He told me how he was discharged, and then he went up to Mr. Slade. So we got to talking about Mr. Galvin, and he said he knew all about Mr. Galvin. He said that Mr. Galvin had a horse on the Common or Garden, and how one man hired by the city was driving the horse, and he didn't know whether Mr. Galvin was getting paid for that man or not; and then he says he worked three days and got paid for a week; and he told me then, and he told me this afternoon, that he worked for three days and got paid for a week.

Alderman VILES. — That O'Brien got paid for a week?

A. Yes, sir. This gentleman (pointing to the last witness); and he said he was going to testify on those grounds.

Mr. VOSE. — Testify on the grounds that he worked three days and got paid for six?

A. Yes; and there is another instance.

Q. What is that?

A. He wanted to look back and see if Mr. Galvin was getting paid for this man who was working for the city, besides his horse.

DANIEL O'BRIEN. — *Resumed.*

The CHAIRMAN. — Mr. O'Brien, the committee will notify you when they have the next meeting, and you can bring forward your statement.

Mr. BROWN. — I should like to ask this man if he worked three days for the city and got paid for six?

Mr. BURKE. — It has been answered.

Alderman CLARK. — Let him state it now.

The CHAIRMAN (to witness). — Did you ever work three days for the city and get paid for six?

A. No, sir; not for six. I might have got paid for three or more.

Q. By what arrangement did you get paid for more work than you did? Was it from some misrepresentation on your part, or some connivance with the superintendent?

A. I should say it was not on connivance.

Q. You say Mr. Galvin paid you for more work than you performed, and knew that you had not done?

A. I should think so.

Mr. RUFFIN. — How much did you get paid for?

A. I got paid for five days' work. I worked three days and was paid for five.

Mr. VOSE. — Why didn't you say so at first?

A. I told you I knew slightly about the Common this year.

Alderman VILES. — Was it John Galvin who paid you for five days?

A. I will answer that Mr. Viles. It was J. M. Galvin. I was going to be discharged, and I supposed that I would have six weeks' work, and I told him so, and that Alderman Slade had promised it to me; and he said, "I cannot give you work, but the best I can do is to give you five days." He said, "That is the best I can do for you."

Q. And you had worked but three days?

A. I got five days' pay and only worked three, on my oath.

Mr. SMARDON. How much did he pay you for those five days' work?

A. Eight dollars and seventy-five cents.

Alderman CLARK. — I ask that this man be put under oath. I want him put under oath at the present time. I want that statement sworn to.

By general consent it was decided to put the witness under oath, and he held up his hand to be sworn.

Alderman CLARK. — Be careful, young man.

WITNESS. — I know what I am doing, Mr. Clark.

The oath was administered by the clerk of committees.

Mr. VOSE. — I would ask the chairman what right this committee have to swear that or any other man. I want to know why we have the right?

Mr. RUFFIN. — We can take his sworn statement. Mr. Lee is a justice of the peace.

Mr. VOSE. — So am I, and so are you; but what right have we to take his sworn statement?

Mr. RUFFIN. — We can take his sworn statement; but we have no right to subpœna witnesses.

The CHAIRMAN. — It has been a common custom in the City Government to swear parties. Now, will Mr. O'Brien answer that question again? You say you worked three days and were paid for five?

WITNESS. — Yes, sir.

Q. Will you name the days?

A. Well, sir, I didn't take any notice of the days. I didn't notice about that; I didn't bother my mind. I was told to go to work, and worked three days.

Q. How long ago was that?

A. In the month of May.

Q. And that is all you worked this year?

A. Yes, sir.

Mr. WILBUR. — You got paid for five days?

A. Yes. sir. And what I wish to prove to you, gentlemen of the committee, is of the corruption in years gone by,— men getting paid and doing no work.

Mr. BURKE. — Who takes the time of the men at work on the ground?

A. Mr. Galvin's son.

Q. Does he call them off?

A. Yes, sir. They are called in the Deer park.

Q. If a man is going to work that day, what does he do?

A. He answers to his name and walks off to work.

Q. And if he answers to his name in the morning he is credited with five hours' labor?

A. Yes, sir.

Q. And the same in the afternoon?

A. Yes, sir.

Mr. WILBUR. — Have you known or heard of any such instances as this?

A. Yes, I have heard some years ago; some men told me they got paid.

Mr. BURKE. — Was your name called on the fourth day?

A. No, sir. I see Mitchell Galvin in the garden and I met him there. He told me he could not do anything.

Mr. WILBUR. — Where were you at work, — on what grounds?

A. On the Common.

Q. How many men were at work on the Common at the time you were there?

A. I should think a hundred or more.

Q. On the Common?

A. Yes, sir. They are called there, and some go out to Roxbury or East Boston.

Q. Do they all report there in the morning?

A. Yes, sir.

Q. Do you think there were a hundred men?

A. Yes, sir; sometimes there were a hundred and forty.

Q. Do you mean to say they called them first, and then they go to East Boston or Roxbury?

A. Yes, sir; whether they live in Charlestown or Roxbury they have to go to the Common to answer to their names. I suppose they all go and answer in the same way.

Mr. BURKE. — Do all the men working there have to come in?

A. Yes, sir; all except Brighton.

Mr. SMARDON. — Didn't you tell him you had worked three days only?

A. Yes, sir. I worked only three days, and received pay for five days.

Alderman VILES. — I think I can tell that by the books.

The CHAIRMAN. — The books will show whether he was paid three or five days. In relation to this gentleman's statement, do I understand that we are to notify him when we are meet again and ask him to be present?

Mr. WILBUR. — I should think that as this is an investigation —

Alderman VILES. — We have got all the facts he knows about this year.

WITNESS. — I have given all the facts I know about this year: but if it goes to the Council, and they legislate for a general investigation, I can show you other facts.

Mr. RUFFIN. — You say you worked only three days?

A. Yes, sir.

Q. And got paid for five?

A. Yes, sir.

Q. Did you knowingly receive pay for five days when you only worked three?

A. I supposed he could give what he pleased.

Q. Did you knowingly receive pay for five days when you had worked only three?

A. I know some men get a little more pay than others, and I didn't know whether he classed me among them or not.

The CHAIRMAN. — Did Mr. Galvin receive any benefit from your receiving pay for five days when you had worked only three?

A. Of the money?

Q. Of the money?

A. No, sir.

Q. You put it in your pocket and kept it?

A. Yes, sir.

Mr. RUFFIN. — You knew at the time that that was what you termed corruption?

A. I supposed, being a poor man, that I could take what he gave me.

Q. And you being a poor man were willing to be corrupted?

A. I supposed it might be classed as bigger pay.

Mr. BROWN. — Was the five days' pay given to pacify you, or whether you were to come and work a few days more?

A. I don't know. I supposed he gave it to me whether I came and worked or not.

Mr. RUFFIN. — Have you ever received any money corruptly other than this?

A. No, sir.

Q. This is all the corrupt money you have received?

A. Yes, sir; if you call it corrupt.

Mr. WILBUR. — Where did you draw your pay, — in City Hall?

A. Yes, sir.

Mr. SMARDON. — Did you receipt for this eight dollars and seventy-five cents?

A. I didn't receipt for it. No, sir.

Q. Did they give it to you without your giving any receipt in return?

A. Yes, sir.
Q. Is that the way they do business in City Hall?
A. I don't know; I got the money.
Q. Do they always pay bills in that way?
A. I don't know; I always got my bills.
Q. You say you have worked several years on the Common?
A. Yes, sir.
Q. Do they generally give money without a receipt?
A. Yes, sir. The paymaster comes up on the Deer park and gives the money.
Q. You got it in City Hall, I understood you to say.
A. Yes, sir.
Mr. RUFFIN. — Did you sign a pay-roll?
A. No, sir.
Q. And gave no receipt?
A. No, sir.
Mr. VOSE. — Didn't you sign a pay-roll at any time?
A. No, sir. Mr. Crowley took the slip and got some one to hand out the money in silver.
Mr. SMARDON. — Who gave this eight dollars and seventy-five cents?
A. Some one behind the rails.
Q. Was it in the auditor's office?
A. No, sir.
Q. Or the assessors' office?
A. No, sir. It was in the morning when I received or took the money.
Mr. WILBUR. — Where did you get the slip?
A. Mr. Galvin's son gave it to me and I gave it to Mr. Crowley, and I suppose he brought it down to the books, and I supposed it was all right.
Q. Didn't you get it from the treasurer?
A. I gave it to Crowley.
Q. Did he present it in the treasurer's department?
A. No, sir; he presented the piece of paper.
Q. You don't know what was on that piece of paper?
A. No, sir.
Q. You couldn't say whether it was eight dollars and seventy-five cents for five days?
A. No, sir.
Q. You never saw the item made up for five days?
A. No, sir.
Q. How do you know you were credited with five days' work?
A. I know what he told me.
Q. Who told you?
A. Galvin.
Q. Which Galvin?
A. Galvin's son.
Mr. RUFFIN. — Do you say that this full statement that you have given before you were sworn is true?
A. Yes, sir.
Mr. BURKE. — That gentleman said you told him you got pay

for a week, which I suppose means six days, when you only worked three. Did you tell him that?

A. I don't remember saying a week; I meant five days. I wouldn't swear that I got paid for six, for I only got paid for five.

JAMES MCGARAGLE.

Q. (By the CHAIRMAN.) You are foreman of the Department of Common and Squares?

A. I have been foreman for Mr. Galvin for five years.

Q. What can you tell us about it?

A. Well, I am very familiar with the working of Mr. Galvin's department.

Alderman CLARK. — You will understand, Mr. Chairman, that he is not the foreman now, but is a police officer. He was foreman for five years.

Q. (By the CHAIRMAN.) Previous to this year?

A. Yes, sir; from 1869 five years, dating back this way. I know we have always had very explicit instructions from Mr. Galvin to carry on the department judiciously, and to see that the men were constantly and continually at work in the interest of the city. I know something of Mr. O'Brien. I have worked a great deal on the Common for the last two or three years.

Q. In your capacity as police officer?

A. Yes, sir; I have been on the Common as police officer for four years. I know he is one of those gentlemen who would rather play than work. He is what I pronounce a loafer. I have seen him there for years. He is a man that would not work if he was employed on the grounds. His record as a skilled workman is very slim; he has no ability at all.

Q. Well, what was his peculiar qualification?

A. His peculiar qualification was loafing most of the time, unless he was closely watched.

Q. (By Mr. RUFFIN.) While you were police officer, did you often see him on the Common when he was not at work?

A. Yes, sir.

Q. (By the CHAIRMAN.) Have you noticed him this year?

A. I have not been there this year. I was wounded last year, — I was the officer who was shot on Kneeland street. I have not spent so much of my time there this year.

Q. (By Mr. WILBUR.) Have you known Mr. O'Brien for some time?

A. I have seen him for some time.

Q. Do you know him to be truthful?

A. I do not know about his truthfulness, but I know he don't care much about work.

Q. Have you any reason to believe that he would state anything here that is not true?

A. Well, I think he has stated things here that are not true, in my hearing. He stated, I think, that all the men were at roll-call morning and evening, no matter if they were at work in Roxbury or Brighton.

Mr. O'BRIEN. — I never said so.

Mr. BROWN. — He said at seven and one o'clock.

The CHAIRMAN. — You will have an opportunity, Mr. O'Brien, to ask him any questions you like after he has finished.

Mr. McGARAGLE. — I understood him that they were there at roll-call morning and evening. It would be impossible for them to get in from Roxbury or Brighton at six o'clock unless they started in the middle of the afternoon.

Q. (By the CHAIRMAN.) How about the roll-call in the morning?

A. They have it in the morning, but sometimes they are not all there in the morning. Frequently they prefer to have them in different sections of the city, when they can trust them. Invariably these trustworthy men are taken off to do the suburban work, so that they can attend to it without loss of time.

Q. The object of the roll-call is to make all the men commence work at a certain hour in the morning?

A. Yes. When I was foreman there we had very seldom any men report at roll-call except those engaged in the Department of Common and Garden. We always made it a point to send trustworthy men to the southern squares, and they would report their work.

Q. (By Mr. WILBUR.) When do I understand you to say you left the department?

A. I left five years ago last October, when I was appointed police officer.

Q. You have not been on the Common since?

A. No, sir, except as police officer. I was there in that capacity until a year ago last August.

Q. Have you had occasion to take notice of anything that has been done there?

A. I have been there frequently; almost every day I have sat down on the seats there. I have not seen anything loose in the department this year more than others. I have always seen the men busy about their work.

Q. You don't know whether there is any change in the roll-call from what it was five years ago?

A. I think now they call it at noon, and they are sure to have the men there three times a day, if not at any other time. They usually called it twice a day, morning and evening, when I was there. There is a larger number of men employed there this year, and I suppose that is the reason they call the roll-call at noontime, or at one o'clock.

Q. How many men were employed when you were foreman?

A. It varied according to the weather. I think there were times when we employed one hundred and ten. It made all the difference in the world what the weather was. A rain-storm washes very badly on the Common and on the Public Garden. Then the grass grows very rapidly in wet weather.

Q. How many men would it average in the first five or six months of the year?

A. I could not say, sir; possibly seventy-five or eighty. Of

course the department was not as large then as it is now. There are several sections of Commonwealth avenue that have been taken on since I was there, and they require some men to carry them on.

Q. There were not then as many flowers in the Garden as there are now? It was not kept up as it is now?

A. No, sir. The Common was not kept in as good trim. The parade-ground was a barren wilderness. This year it is laid down to grass, and more men are needed to take care of it. When I was there, there was no section of Commonwealth avenue below where Alderman Clark lives; now it is taken in away down to Parker street.

Q. How often was it the custom to cut the grass on the Common at that time?

A. I kept a record of it one or two years on the Garden, and I think one year we cut it twenty-three times. I remember one year we commenced the 8th of April to cut the grass. It was a very wet year, and we cut it twenty-three times.

Q. How many men are generally employed in cutting the grass and clearing it away?

A. Well, it depends a great deal upon the weather. Sometimes we can get along with six men, and at other times it takes more to do the cutting, and perhaps two or three men to do the raking.

Q. Did you cut with the machine then?

A. Yes, sir. The first year I was there it was cut with the scythe; after that we used the machine.

Q. Do you have any means of knowing what would be a fair number of men to keep the Common alone in such a condition as Mr. Galvin keeps it now during the season?

A. No, sir, I have no means of knowing; but I judge there are certainly more men there this year to take care of it with the weather we have had. It has been very remarkable weather this year.

Q. You don't think you could give the number of men that would be necessary?

A. No, sir. It is a very large place to take care of, and it takes a large number of men. In wet weather it cuts out very badly. I have seen it cut out so badly that it would take twenty men two days to repair it. This red gravel cuts out very badly.

Q. (By the Chairman.) You refer to the paths?

A. Yes. In a heavy rain-storm or freshet I have seen the paths cut out so that two men could lie down on each other and not be seen; this would apply to certain parts of the Garden as well.

Q. (By Mr. Wilbur.) You could not form any idea about how many men it would take to carry on the Common alone?

A. I could not.

Q. Whether it would take twenty or thirty?

A. Well, to keep it in the way it has been kept this summer, I should think it would. It takes more men in one season than

another. Up to the Fourth of July he has a good many men, and after that time he reduces it. He takes great pride in having the Common look well for that time, and employs many men.

Q. Well, in the winter does it take a great many men to keep it free from snow and ice?

A. It does if we have a bad winter. I should not think twenty-five or thirty men would be too many, in a bad winter, to keep the Common in a proper condition. There is a great deal of shovelling to be done.

Q. His men have to do that?

A. Yes, sir.

Q. When is the bulk of the work on the Common done? In what part of the year?

A. Well, commencing the first of April, — April, May, June, and a portion of July. The snow that is hauled on there in the winter makes a great deal of work in the spring, particularly if the spring is cold and backward, then you have to put on a good many men to clear away this ice and give the grass a chance. I have seen one hundred men on the Common picking snow; not all of them Mr. Galvin's men, to be sure; a large proportion of them were Mr. Harris's. I think I could safely swear that I had seen one hundred men there.

Q. (By Mr. RUFFIN.) What is the largest number of men you ever knew to be engaged there in the summer?

A. I have had one hundred and ten men under me there, I think.

Q. (By the CHAIRMAN.) On the Common alone?

A. In the department, sir.

Q. Scattered all over the South End?

A. Yes, sir. It is impossible to state the number of men you would want on the Common. Frequently you have to make a requisition on the Garden for men. There are a certain number of men sent to the Common, and they are there till the work gets ahead of them. Very often the foreman has to make a requisition on the Garden, in order to get the work done up.

Q. (By Alderman CLARK.) When you had one hundred and ten men under you, Commonwealth avenue was not finished below —

A. Not below your house, sir. Berkeley and Clarendon streets were just finished.

Q. Washington park was not completed so as to require any work?

A. No, sir.

Q. The square at the South End did not require much care, except filling in?

A. No, sir. Charlestown was not annexed, nor Dorchester. I should judge that the department was almost as large again as when I worked in it.

Q. (By Mr. WILBUR.) At the time when you were there was Independent square or Washington park completed?

A. Yes, sir.

Q. (By Alderman CLARK.) There was a great deal of work at Orchard park when you were there?

A. Yes, sir.

Q. (By Mr. Wilbur.) Do I understand you to say there was considerable work done on Orchard park?

A. There was considerable, but not so much as there has been since.

Q. What was the nature of the work that was done there?

A. Filling up, I think, sir.

Q. Have you seen Orchard park lately, Mr. McGaragle?

A. No, sir; I do not know that I have.

Q. How long is it since you last saw it?

A. Well, some years, — some three or four years, I think, sir.

Q. You have not seen it since it was last improved?

A. I cannot say that I have, sir.

Q. (By Alderman Viles.) Were there any trees there when you saw it last?

A. There were some trees there, I think.

Q. (By Mr. Wilbur.) Did you say there were trees there when you saw it last?

A. No, sir; I think there were not.

Q. (By Alderman Clark.) Did you say that you think that the number of men required now was nearly double that required when you were there?

A. Yes, I did, sir. I think the department is almost as large again as it was when I was there.

Q. Is there not double the number of men required to keep the Public Garden in the condition it is kept in, than were required when you were there?

A. Yes, sir; it is kept better, and I know it requires more men.

Q. (By Mr. Wilbur.) I understood you to say you were familiar with the locality of Orchard park?

A. I cannot say that I am very familiar with it.

Q. You know where it is?

A. I know it is in the southern portion of the city, sir.

Q. I thought I understood you to say you were familiar with the locality?

A. I am not, sir; I know it is in Ward 20.

Mr. Wilbur. — If you are not familiar with the locality, of course I cannot ask you the question I would like to ask.

Mr. McGaragle. — No, sir.

Q. (By Mr. O'Brien.) Mr. McGaragle, you say you have been there and seen me work. Did you ever see any other men not doing much work, besides myself, in all the years that you have been there?

A. I suppose men are not like machines, but there are men I call practical loafers.

Q. Did you ever go into the water-closet up on the Common and sit down to smoke and loaf?

A. I never smoked in my life.

Q. Did you ever sit down and loaf?

A. Never, sir.

Mr. O'Brien. — I have seen you there myself.

Q. (By Mr. BROWN to Mr. O'BRIEN.) Did you ever see him smoke?

A. No, sir, I never did.

Mr. MCGARAGLE. — Did you ever see me drinking rum?

Mr. O'BRIEN. — No, sir; did you ever see me? But you come here and try to blacken me.

Mr. MCGARAGLE. — No, I do not.

Mr. O'BRIEN. — You said I was a loafer, and was incompetent to do the work there.

The CHAIRMAN. — If you ask him any questions having a bearing on what he stated about you it will be to the point.

Mr. O'BRIEN. — He says he considers me a practical loafer, and I ask him if he is not a political and lukewarm friend of Mr. Galvin, and a man who has helped to put him in his place. He comes here to try to blacken me, when I worked as well as anybody else.

Mr. MCGARAGLE. — I am a friend of Mr. Galvin no further than he is right. I consider him a gentleman and an honest man.

Mr. O'BRIEN. — Do you consider yourself a gentleman?

Mr. MCGARAGLE. — And I have reason to know it.

Mr. O'BRIEN. — Well, all I have to say is that if this man had any more facts to blacken me certainly he would state them. But I can testify against him that he has been in the House of Correction, and served out a sentence there, — this gentleman right here, — and he has been a police officer four or five years running.

The CHAIRMAN. — Mr. O'Brien, you had better take your seat.

Q. (By Alderman CLARK.) Mr. McGaragle, what is the usual custom of the foreman and assistant foreman when they get such men as Mr. O'Brien as workmen on the Common? What was your custom, — to keep them or to discharge them?

A. My usual custom was to discharge the poorest and keep the best. I presume that is the custom they have at the present time. You may take a class of 'longshoremen, if you please, — good working men, but they are not qualified to do the work on the Common.

Q. I do not ask with regard to Mr. Galvin; but I understand you to say you look upon this man as a loafer.

A. That is what I should consider him.

Q. And, if you should discharge him, that would be your excuse?

A. Yes, sir.

Q. (By Mr. WILBUR.) You heard the statement made by Mr. O'Brien that he had been paid for five days' work when he only worked three. Did you, in your capacity as foreman, at the time you were in the department, ever know of any such instance as that?

A. No, sir.

Q. Did you ever allow any man more time on the pay-roll than he was actually employed?

A. Never, sir, in my life. We were very particular about their time, — to give them just what they worked, and no more.

Q. (By Mr. RUFFIN.) How do you pay a laborer who is discharged?

A. They receive it usually at the treasurer's office, downstairs.

Q. Well, what has the treasurer to guide him?

A. He has the pay-roll.

Q. Does he get their receipt?

A. They invariably sign the pay-roll.

Q. (By the CHAIRMAN.) The pay-roll, as I understand it, specifies the number of days a gentleman has worked; would it be possible for the treasurer to pay a man for five days when he had worked only three, and it was not expressly stated on the pay-roll?

A. It would not; the pay-roll is there the same as all others, and it is carried out.

Alderman CLARK. — I suggest, Mr. Chairman, that we have the pay-roll and all the books before you.

Mr. MCGARAGLE. — When I was there I made up the pay-roll.

Q. (By Alderman VILES.) Does the foreman go to the treasurer's office and identify these men?

A. I do not know whether he does now. I know they did not.

Q. (By Mr. WILBUR.) Well, after you make up the pay-roll does a man sign at the time he gets his money, or before?

A. At the time he gets his money.

Q. Where is that pay-roll? In the treasurer's office?

A. I presume they are all there.

Q. It has to be there at the time of payment?

A. Yes, sir. I never got a dollar without it.

Q. Well, was it the custom for a paymaster to go around and pay them?

A. It was customary for them to pay in the greenhouse.

Q. A regular paymaster come there?

A. Yes, sir.

Q. (By Alderman DUNBAR.) When do they sign, — when they get their money, or previously?

A. When they get their money.

Q. Could anybody else get the money except the men whose name is on the pay-roll?

A. I don't know but they might, but it would be a dangerous proceeding for another man to sign, if his name was not on the pay-roll.

The CHAIRMAN. — That is all, Mr. McGaragle. Is there any other gentleman present who desires to say anything about the mismanagement of the Common and squares? If not the Chair will declare the public hearing closed.

Adjourned till Friday, Oct. 26, at 7 P.M.

Second Session.

FRIDAY, Oct. 26, 1877.

The committee met at seven o'clock P.M., in the large committee-room.

All the members were present.

After a brief private consultation the committee decided to make the hearing a public one.

STATEMENT OF POLICE OFFICER WINSLOW B. LUCAS.

The CHAIRMAN. — You are stationed on the Common?

A. Yes, sir; I am on during the day.

Q. Can you tell us about the neglect of duty and responsibilities of persons connected with the Common?

A. Well, I don't know.

Alderman VILES. — I would like to inquire if you are an officer of the City of Boston, or are you paid from the appropriation for the Common?

A. No, sir; I belong to the police force of Boston. I am attached to Station 4. My route is on the Common, about one-third of it.

The CHAIRMAN. — As an officer on the Common, have you observed any neglect of duty?

A. Nothing specially, except the workmen are sometimes dilatory when there are no bosses around. I have noticed that when there are no bosses around they are tardy in their labors. When the foreman or superintendent is around they work steady.

Q. The superintendent is around there at all times?

A. Well, several times during the day. He is there early in the morning and stays there during the forenoon, and sometimes in the afternoon.

Alderman VILES. — You don't mean Superintendent Galvin?

A. Yes, sir; Mr. Galvin.

The CHAIRMAN. — There are other foremen besides?

A. Yes, sir; there are two foremen. He has had one man there all the time.

Q. What other information can you give about this?

A. I don't know anything about the Committee on Common and Squares. I am on there as a police officer, to protect the peace.

Q. Do you know anything about the carting of loam on the Common, around the monument?

A. During the summer there has been considerable stuff carted there, — loam, stone, and large quantities of it.

Q. You kept no record except what you saw going on?

A. No, sir; except what I saw going on. The first of their commencing to cart the stuff in I was absent on a vacation. Then when I came back they were gone.

Alderman VILES. — How is the record kept of carting on the stone and gravel?

A. I saw the foreman having tickets.

Q. For every load?

A. For every load.

The CHAIRMAN. — To what extent is this dilatoriness on the part of the men? Do they work as well as the average of laboring men do?

A. Yes, sir; as well as the average of laboring men. Ten hours a day with a shovel and spade I think is pretty hard work.

Alderman CLARK. — You sometimes see the men sweeping the streets, and shovelling snow off the sidewalks in the winter time; do the men employed on the Common, employed by the superintendent, work as steadily as the average of men employed by the city?

A. I think they do.

Q. Don't you think they keep at work a little sharper than the men on the sidewalks?

A. In the street department the foreman is around all the time.

Q. You think it is a fair average?

A. Yes, sir; I think I do, really.

The CHAIRMAN. — As a general thing are they able-bodied men?

A. Yes, sir; I think so.

Q. And will compare favorably with any gang of men?

A. Yes, sir.

Mr. BROWN. — In your opinion have there been more men employed on the Common than is necessary since the first of January, 1877?

A. I have been there only since the first of last October, and don't know much about the work there. I know that last spring, when the ice and snow was on there, they had a good gang; but I didn't think there was any more than was actually needed to do the work.

The CHAIRMAN. — Do you consider that there has been more men there this summer than were actually needed to do the work?

A. No, sir, I do not. They were steadily employed, sweeping, sodding, etc.

Mr. WILBUR. — About what time did this filling or carting of loam about the monument occupy?

A. What time during the day, sir?

Q. No, sir; the length of time.

A. The length of time since they first commenced? It was, I should judge, about a fortnight before the dedication, or three weeks before the dedication. I kept no notes. As the dedication day came nearer they rushed it harder still; and they worked nights, I understood.

Alderman CLARK. — Don't you know that they worked nights?

A. I don't know. I understood so. I was not on nights.

Q. You heard that they were at work nights?

A. Yes, sir; I heard the foreman say that they were going to work nights?

Mr. WILBUR. — Was your beat anywhere in the immediate vicinity, so that you could form any idea about the teams, and the quantity of loam they brought?

A. I was there during the day, as I said before, and there was a large number of teams there, and they came quite frequent. There was a pretty good depth of loam put on there.

Q. Can you give any idea about how many loads a day?

A. There was some, I should think, thirty or forty teams, or more, during the day came in there. I noticed the different drivers, and they came in two or three times a day.

Q. Do you mean to say thirty or forty different teams?

A. Yes, sir; I should think there was all of that.

Q. And they came twice a day?

A. I should think they came twice a day. They came from Roxbury, — a long distance.

Q. Would you have any reason to suppose that they came three times a day?

A. I don't know. I was only there on my route, and I would come there and go away.

Q. You couldn't form any idea whether they came three or four times?

A. No, sir; I kept no memorandum.

Q. In your judgment, how many times did they come?

A. I should think they came three times a day, — in the morning, the middle of the day, and at night, and just as I was going away there would come a lot of them.

Q. When you say twenty or thirty teams, would that cover it in your judgment? Might not there have been forty or fifty?

A. Yes, sir; there might be more than that.

Alderman CLARK. — Don't you think there might be seventy-five?

A. There was quite a large number.

Q. Don't you think they employed seventy-five? Wouldn't it take a large number?

A. It came from Roxbury, and takes a long time.

Q. Suppose the stone came from Parker street, out at the further end of Marlborough street, how many times could a team come in each day?

A. I should think they might rush and get in four times a day.

Mr. WILBUR. — Do you think there was more than two hundred loads a day brought in there?

A. I should think somewhere in that neighborhood.

The CHAIRMAN. — Does that cover the work done in the evening?

A. No, sir; only during my observation.

Q. But your opinion was merely from observation; you kept no record?

A. Yes, sir; I just saw them coming like so many bees.

Mr. VOSE. — How many hours a day are you on duty?

A. Nine hours a day; I go on at eight and go off at six.

Q. You are off at dinner?

A. One hour at dinner.

Mr. WILBUR. — Did you notice anything by seeing the teams, — whether the carts were full, or anything of that kind? Was your notice ever brought to that?

A. Oh, yes, sir; several times I heard Mr. Galvin pitch into the drivers about their loads being a little short. I noticed that they were settled down considerably.

Q. You noticed him pitching into them?

A. He pitched into them red-hot.

Q. Was Mr. Galvin present most of the time?

A. Yes, sir; he spent most of the forenoon there.

Mr. Smardon. — Do I understand that you noticed this ground in the daytime?

A. Yes, sir.

Q. Every day?

A. Yes, sir; every day.

Q. Did you notice any difference from one day to another — whether anything was put on at night?

A. Yes, sir; I would see it put on and spread out, and that loads hadn't been spread.

Q. You noticed that it had been filled in at night?

A. Yes, sir.

Q. And do you think they put in as many loads at night as in the daytime?

A. No, sir. I understood that they didn't work all night, — only till midnight.

Alderman Robinson. — In all this time there were teams coming with stone to put around the monument, and also soil and gravel, as may be necessary?

A. Yes, sir.

Q. You intended to include that?

A. Yes, sir. Some were large stones, and some were crushed stones, and some of them small.

Councilman Thompson. — How near can you fix the time when they commenced work?

A. Let me see — the twenty-first of August — about the latter part of August. I went on a vacation the twenty-first of August, and returned September 4th. It was the last week in August.

Q. Were they working when you went away?

A. They were putting up the monument when I went away. They hadn't commenced grading when I went away.

Q. But when you returned they were grading?

A. Yes, sir.

Q. Was there considerable done?

A. Yes, sir; they had got close up to the mound, and were grading it off.

Q. When did they commence to work at night?

A. I guess it was the week before the dedication.

Q. I understood you to say that in your opinion there were two hundred loads a day. Was that during the time you were on?

A. I should judge there were from thirty to forty teams, and, judging that they came three or four times a day, I should judge there were a hundred and fifty to two hundred loads a day.

Q. You were on each day, how many hours?

A. From eight o'clock until six.

Q. What time did they commence work in the morning?

A. I presume about seven o'clock.

Q. And worked till midnight?

A. And worked till midnight.

Mr. WILBUR. — What is the length of time I understand you to say this filling was going on?

A. Well, it was commenced about a fortnight or three weeks before the dedication, and kept up about a fortnight coming to-morrow night, when they quit.

Mr. BROWN. — Do you understand that the same teams which worked during the day worked at night?

A. The teams were, I think, the same. I don't know who the workmen and laborers were, the teams were the same.

Mr. WILBUR. — Do you know who owned the teams?

A. I undersood that Mr. Nawn was the contractor, and had his own teams and hired others besides.

Councilman THOMPSON. — Did any of the people who put loam there or bring dirt there, say it came from the city stables? — did you hear anybody say anything about that?

A. They didn't appear to be city teams.

STATEMENT OF POLICE OFFICER WILLIAM B. HILL.

The CHAIRMAN. —What neglect of duty have you noticed on the Common and squares? — you are an officer on the Common and squares?

A. Yes, sir, I am onnights.

Q. From what hour to what hour?

A. From six o'clock in the evening till one in the morning, and every other night from one till eight in the morning.

Q. What can you tell us about the Common and the squares during your night observations?

A. I don't know that I know anything more than has been stated.

Q. They were teaming there, to your recollection, for many nights?

A. I was on a vacation when they were working nights.

Q. So that you really know nothing about the matter of teaming?

A. No, sir, not at night. I had a curiosity, one morning, to count how many teams came there in twenty minutes, and there were thirty.

Mr. WILBUR. — What time was that?

A. Seven o'clock, or a little before, in the morning. I noticed there were more more teams coming in at the gate. I had stopped there.

Q. Why was your attention called particularly at that time to count those teams?

A. It wasn't called to it. I saw the teams coming, and had the curiosity to count them.

Q. Because they were all in one stream?

A. Yes, sir.

The CHAIRMAN. — What interval was there between the thirty teams coming and another batch, — did you notice?

A. I didn't notice anything at all. I noticed that the foreman gave each man a ticket as he drove on to the grounds. My beat covers a large part of the Common that isn't in that immediate neighborhood, so that I don't know.

Mr. WILBUR. — You wasn't present when the filling was going on, and you were on your vacation, and weren't there any nights?

A. No, sir, I think not. I might have been there one or two nights, as they worked pretty well. I was on a vacation at that time when they were working nights.

STATEMENT OF POLICE OFFICER JAMES KELLY.

The CHAIRMAN. — What information can you give us? — what hours are you on the Common?

A. I am on the first of the night the first three nights of the week, and the last three nights of the week I go on at seven and leave off at one o'clock; and the other three nights I go on at one o'clock, and leave off at eight in the morning.

Q. Have you noticed the teams coming there?

A. I noticed a great many teams coming in at night there, and sometimes they would be blocked up so they wouldn't have a chance to get through; there would be seven or eight at a time, and I always helped them come through. I asked the foreman one night how many teams there were, and he told me eighteen.

Ald. ROBINSON. — How many?

A. Eighteen.

The CHAIRMAN. — How late at night did they dump the material there?

A. I think they worked pretty near till twelve o'clock; it might be twelve, or half-past eleven.

Mr. BURKE. — Did they make two or three trips?

A. I cannot tell how many trips. They kept coming and going all the time.

Ald. DUNBAR. — Were there men employed all this time disposing of this material and putting it in place?

A. There was only a few men at night,— a few of Mr. Galvin's men, — about enough men to keep the teams out of the way, and they were dumping the loads wherever they wanted to.

The CHAIRMAN. — Have you noticed any neglect whatever on the part of the superintendent or foreman in the performance of their duties?

A. I always considered them very diligent and pretty particular about the men, and about the officers there too, and keeping them to their places and duty. I have been on there sixteen years and in the Public Garden, and I always considered him very officious in regard to keeping the men at work.

Mr. WILBUR. — How do you fix this number of teams?

A. The foreman told me so.

Q. What foreman?

A. Mr. Galvin's foreman that was on the dump. He was there as long as the teams kept coming. When the teams stopped he stopped.

Q. Did you ever hear him find any fault in regard to the teams being full or not?

A. I did, considering that a horse couldn't take so large a load up that hill. It is pretty high grade. I think he could take more on a level ground.

Q. What do you mean?

A. It is pretty high grade coming up that place. I don't think a horse could take a very full load up that hill. Not so much as he could on level ground.

Q. What part of the hill do they drive up?

A. They came up where the old elm-tree formerly was and towards the monument.

Q. That grade isn't so steep but that a good decent horse could carry a good load up there?

A. It could take a decent load.

Q. Have you any reason to believe that the teams were not as full as they should be?

A. I have no reason to believe, but I think they took all they were able to take.

Q. Didn't you consider it a full load?

A. I should think you might call it a full load. Sometimes they got stuck there. It is very few horses in Boston that can take a big load up there as they did. And they were very large horses.

Q. You have no reason to believe it wasn't a full load, have you?

A. No, sir; I believe there is but very few horses in Boston that could take up the load that they did. They were large, powerful horses.

Mr. BURKE. — Did you hear any questions raised as to the loads, — whether they were full or not?

A. Some remarks were passed about the loads, — some seeming to say they could take more.

Alderman VILES. — Was Mr. Galvin there at night?

A. I saw him there late in the evening and in the morning. I don't remember seeing him there nights, that is, after dark.

Mr. WILBUR. — Was the same man there in the daytime as in the night-time?

A. There was a boss there in the night-time; I don't know whether he was there during the daytime or not.

Q. How many of Mr. Galvin's men were there at night, should you think?

A. I don't know; some three or four were there. I could not tell who employed them. I think some were Mr. Galvin's men.

Mr. BROWN. — If you had taken that job by the contract, and those teams, wheeled the gravel, and bought it by the load, would you have been satisfied with the quantity of material that those horses came to the foot of the hill with?

A. As far as the hill is concerned?

Q. Would you have been satisfied if you had been buying that material by the load, would you have been satisfied with the loads that the teams brought? If you were paying so much a load for materials by the load, would you have demurred or been satisfied?

A. I am not much acquainted with teaming business, and I don't know what a horse ought to lug.

Q. The only idea I want to get out is, if you were buying material by the load, would you have been satisfied with the load that came to the foot of the hill?

A. Well, I might say you had better put on a little more.

Alderman Clark. — Have you any reason to suppose that they were not a full cart-load?

A. No, sir; I haven't any reason to suppose. Most of the loads were drawn with two horses. I don't think many horses in Boston could draw them up.

Q. You have no reason to suppose that a horse can draw as heavy a load up hill as he can on level ground?

A. No, sir; I think they hauled a big load up hill, considering the place that they went to.

Councilman Thompson. — Did you hear where the loam came from, — where they hauled it from?

A. I could not tell; they came into the gate; that is all I know.

Statement of Owen Nawn.

The Chairman. — You supplied the city with a portion of the gravel, and split stones, and other materials to fill up the space around the monument?

A. Yes, sir.

Q. Can you give us any idea of the amount of material you put in there?

A. Yes, sir.

Q. Have you got any statement with you?

A. I have got a copy of it. [Witness took out a paper.] We put in five thousand six hundred and thirty-five loads of loam, and nine hundred and fifty loads of gravel and stones.

Q. Can you give the committee any idea about the price per load?

A. Yes, sir. The loam was fifty cents a load delivered; the stones and gravel I told the superintendent I should charge him the same as the paving committee paid, and I went to the Superintendent of Streets, and he told me he was paying a dollar and fifteen cents, and so I charged the same.

Alderman Viles. — You furnished the gravel?

A. Yes, sir.

Mr. Burke. — That included the teaming of it, I understand?

A. Yes, sir.

Alderman Viles. — I believe that in employing mechanics you usually pay more for work at night. Did you receive any more for the nights?

A. No, sir; the same price as per day.

Mr. RUFFIN. — Did you deliver any sods?

A. No, sir; my brother delivered the sods.

Q. I see one item here in your name?

A. It may be two or three hundred feet. I haven't got them here.

Mr. BROWN. — That didn't go to the monument?

A. No, sir; I could not tell where it went.

Mr. RUFFIN. — Does this include team work?

A. Yes, sir.

Mr. BURKE. — Where was this gravel, stone, and chips used?

A. Around the monument.

Alderman CLARK. — In the walks.

The CHAIRMAN. — How many horses did you have employed there?

A. We had all the way from forty to eighty-five.

Q. Did each horse have a separate team?

A. Some were double and some single.

Alderman VILES. — You received two tickets for a double-horse load?

A. Yes, sir.

Mr. WILBUR. — Was this five thousand six hundred and thirty-five single loads?

A. Yes, sir. When they took in a double load the man got two tickets for it, and when it was a single load he got one ticket for it.

Q. When you say forty horses you don't mean to say forty different teams?

A. No, sir; I mean to say forty different carts.

Q. That would be more than forty horses?

A. Yes, sir; eighty to eighty-five, and one day we had a hundred and five.

Alderman VILES. — How many loads to a team a day?

A. Some days six and some days eight.

Q. And the stone was a dollar and fifteen cents a load?

A. Yes, sir; we run a crusher at Roxbury, and some of the gravel we had crushed there, and we brought that up from the stone-crusher. The stones we brought from Haskins' woods.

Mr. WILBUR. — Do you mean to say that that was six to eight single loads?

A. I mean to say that we brought from six to eight loads on each team a day.

Q. And a double load would be just double that?

A. Yes, sir; a double load would be just double that.

Mr. RUFFIN. — What price did you get for the sods?

A. A cent and a half a foot.

Alderman VILES. — A man with a double team would earn about a dollar and thirteen cents a day?

A. Not exactly. We have to quarry the stones and pay for quarrying them out; and it costs ten cents a load to load them. We don't get our money back for any profit. They have got to blow out a load, and I pay sixty cents a load, by the survey, for every load that is blown out.

The CHAIRMAN. — How high prices have you ever paid for such material?

A. A dollar and a quarter, and I have got a dollar and a half.

Q. And for stones?

A. A dollar and a half.

Q. For a single load?

A. For the single load, many times.

Q. How do these prices compare with this last year and the year before?

A. Last year, — I hadn't anything for two years to speak of, — it is just half price.

Mr. WILBUR. — Lower than it was ever done?

A. Lower than I ever done work in the world.

Mr. BROWN. — Was this work done by putting in bids?

A. Previous to this year there were bids, but this year we carried in the same price as last year.

Mr. WILBUR. — What do you calculate the contents of a load?

A. About twenty feet for a single horse.

Mr. BROWN. — Do you load these teams any slacker or any lighter on account of this grade that it had to go up?

A. Not a particle. We don't own a horse but what will carry anything we put on there. Loam is light, and you couldn't overload a horse with it.

Mr. WILBUR. — The gravel and stone chips about the same?

A. Just the same.

Mr. BURKE. — Wouldn't that loam settle a good deal coming over the paving-stones?

A. Yes, sir; a good deal; you might drive it from Roxbury to here, and over the pavement it would probably settle one-third.

Mr. WILBUR. — You mean to say that when it is taken out it is one-third less?

A. Yes, sir; it will settle down very much.

Q. That wouldn't be more than about fourteen or fifteen feet in the dump.

A. If we send off sixteen feet in a load it will settle down.

Q. And fourteen or fifteen feet would fill the cart?

A. No, sir; fifteen feet wouldn't fill twenty feet.

Q. But you said it would settle down?

A. It will settle down and shrink some, more or less, and you wouldn't think it would so much.

Q. I want to understand; before it is taken out of the bank it is pretty solid?

A. Yes, sir.

Mr. BROWN. — And twenty feet in the bank would measure about fifteen at the dump by settling?

A. It wouldn't lose five feet.

Mr. BURKE. — When the earth is in the bank it is naturally solid?

A. Yes, sir.

Q. And when it is picked and turned up it is much larger in bulk; and when it is first thrown into the cart it will appear much larger in the bulk?

A. Yes, sir.

Q. He [Mr. Wilbur] says it will lose perhaps four or five in twenty square feet.

A. You know the carts are all measured by the city.

Mr. WILBUR. — When you load your carts at the dump you fill them running over?

A. Yes, sir.

Q. And in driving them they settle down?

A. Yes, sir.

Q. And when they settle down it is twenty feet?

A. When full it is twenty feet.

Q. So they wouldn't be twenty feet when emptied?

A. No, sir.

Mr. BURKE. — There would be some heavy loam, but apparently not the same bulk?

A. Yes, sir.

The CHAIRMAN. — You mean to say that loam carted two or three miles will lose something in carting?

A. Yes, sir; more or less falls over the tail-board sometimes.

Mr. WILBUR. — That isn't the case with gravel and chips?

A. Fine gravel won't hold out any more than sand will. Chips will settle in the same proportion.

Q. What proportion of this nine hundred and fifty loads were stone chips?

A. I should think there might have been two-thirds of it stone chips. There might have been more. The place was four feet two inches deep, and they put on about six inches of gravel to a foot.

Q. You have furnished a good deal of this same material to other departments?

A. Why, yes, and all over the city; and some to you, sir.

Q. Has there been any variation in your prices to this department from any other?

A. Not a particle. Every department pays me just the same as the other. We are governed altogether by the Paving Department in this matter.

Q. You are furnishing the Paving Department all the time?

A. Yes, sir.

Q. And you are furnishing this at the same price?

A. Yes, sir.

The CHAIRMAN. — Do you furnish as large a load to the city as you furnished to Mr. Wilbur, a member of the committee?

A. Well, I guess he never found any fault. If he did, I never knew of it.

Alderman ROBINSON. — Did Mr. Nawn furnish the stone for Swett street?

A. Yes, sir. I gave them the whole stone.

The CHAIRMAN. — Are you in the habit of giving things away?

A. Sometimes, unfortunately.

Q. How was it you were such a benefactor?

A. It wasn't my fault.

Alderman VILES. — You didn't make a mistake, and charge it to Common and Squares?

A. Speaking about the Swett-street work, the bids were asked for, and I was in a hurry, and told my boy to carry in one dollar and seventy-five cents a yard; and, when he made his bid, he carried in seventy-four cents. The first thing I knew was it came out in the paper that the job was awarded to me, and when I saw the superintendent he had a laugh at me. I want to go to the committee now, and ask them to help me out.

Mr. WILBUR. — You say you furnished me gravel?

A. Yes, sir; and I charged you more than this.

Q. Was I a member of the City Government?

A. No, sir; before you were a member of the City Government.

Q. Do I understand that you furnished Swett street for nothing?

A. Yes, sir.

Q. Has the chairman of the committee shown you any favoritism?

A. No, sir. I don't know who the chairman is, but I am going to find out.

Mr. RUFFIN. — Was all this stone and gravel delivered at the Common?

A. Yes, sir.

Councilman THOMPSON. — You stated the price of loam a yard —

The CHAIRMAN. — The committee desire me to state that any gentlemen present, not of the Committee on Common and Squares, and the superintendent, can ask any questions through the committee.

Mr. THOMPSON. — Then why are we to understand that the members of the Committee on Common and Squares are favored in that respect?

Alderman CLARK.—You understand the Committee on Common and Squares are on trial.

The CHAIRMAN. — At the last meeting the committee voted to have a public hearing, and the public hearing was closed. Every one present had an opportunity to say what he pleased and ask what questions he pleased. The committee then made up their minds to examine the contractors and the Committee on Common and Squares, and closed the public hearing at the last meeting; but, if any gentleman present has any questions to ask, in order to give the fullest investigation possible, they can ask those questions through any member of the committee, or through the chairman.

Mr. THOMPSON. — I would ask the chairman to ask Mr. Nawn to state again the price he paid for loam.

The CHAIRMAN. — Will you state the price paid by the load for loam?

A. Fifty cents.

Mr. THOMPSON. — I had the impression you paid one dollar and sixty cents a yard for some.

A. That was for getting out the stone.

The CHAIRMAN. [By request of Mr. JOHN CAPEN.] — Will Mr. Nawn please state what kind of loam was delivered on the Common, and where it came from?

A. A part of it came from our banks on Parker street and Centre street. We pick it up and buy it where we can find it.

Mr. CAPEN. — What part of the loam was paid for? I understood there were five thousand six hundred loads, at fifty cents a load?

A. Five thousand six hundred and thirty-five.

Q. Was it loam or was it something else, if I have a right to ask that question?

The CHAIRMAN. — Mr. Nawn will answer that question. The committee understood him to say that he delivered five thousand six hundred and thirty-five loads of loam. That was genuine loam, was it, Mr. Nawn?

A. Well, it is good loam.

Alderman VILES. — You said a part of it came from Parker street. Where did the rest come from?

A. Part of it came from Harrison avenue. When we dig cellars, we pile it up in piles and use it.

Mr. CAPEN. — Then I wish to ask if it didn't belong to the city if it came from Harrison avenue? You say you charged it to the city. I supposed it belonged to the city. I passed over the hill several times, and saw from the fragrance that it wasn't loam.

A. There were some street-sweepings on there, where they had piled it up on my land.

Alderman VILES. — Did you get that from Mr. Forristall?

A. Yes, sir. They piled it up there.

Q. Did you pay him anything for it?

A. No, sir.

Q. Did you get it from the city stables?

A. We got some of it from Harrison avenue, on my land.

Mr. RUFFIN. — What proportion was there?

A. There might have been one hundred and fifty to two hundred loads.

Alderman VILES. — I think he sells that. Did he say anything about the price for it?

A. No, sir; not a word. They are glad to get rid of it. They dump it anywhere they can get the privilege.

The CHAIRMAN. — Then you allow him the privilege of dumping it on your land?

A. Yes, sir.

Mr. CAPEN. — This one hundred and fifty loads of sweepings was included in the loam, and wholly belonged to the city.

A. You are mistaken, sir.

Mr. CAPEN. — What I wanted to get at was whether what was carted on belonged to the city, and whether it was sold for fifty cents a load. I thought it was so.

Mr. BROWN. — How many loads of street-sweepings would a team haul?

A. It would haul eight.

Q. And the space given to that would be four times a day for that one-man team?

A. Yes, sir.

Alderman VILES. — Could you haul more loads from this street than from Parker street?

A. We could, sir.

Q. How many could you haul from Parker street?

A. We could haul six.

Mr. WILBUR. — There seems to be a question raised in regard to those street-sweepings. Hasn't it been the custom of Mr. Forristall, or rather the committee, to solicit a place for those street-sweepings?

A. They came to me for it, and they cannot get a place to put it. If I didn't dig pit-holes, I don't know what they would do with it.

The CHAIRMAN. — Do the committee understand that the city dump it there as a convenience to the Health Department, and not for any particular benefit to you?

A. Not a particle. I would rather they would not do it than do it.

Mr. WILBUR. — What would they be obliged to do with it?

A. I don't know, sir. There wouldn't anybody want it.

Mr. RUFFIN. — Does the city reserve the right to remove it?

A. No, sir; they dump it there.

Q. Do you consider it your property?

A. Yes, sir. They came and asked me to let them put it there.

Mr. WILBUR. — How long does it remain there after it is dumped there?

A. I suppose I have got on Hunneman street five hundred or a thousand loads.

Q. Is this street-sweeping considered good loam?

A. Very good, after it stands a while.

Q. That is what I was coming at. Isn't it considered a good loam to take the place of loam after it is first gathered from the streets?

A. I don't think it is so good when it is first gathered. After it stands a while and rots it is very good soil.

Q. As the question came up about the Department of Health furnishing those street-sweepings and he selling it to the city, what I wanted to get at was, whether those street-sweepings, when first gathered from the streets, is suitable loam to carry on to any ground until it lays and rots?

A. No, I think it wouldn't be good for anything if they carried it and put it right on; and, as for the disposition of it, it is the worst stuff they can find.

Mr. RUFFIN. — How long had this one hundred and fifty loads been on your lot?

A. We had some of it there probably two years.

Alderman VILES. — As chairman of the Committee on Health, I would state something in regard to those ashes. We dump the street-sweepings in the yard on Albany street. We are troubled to find a place to dump our ashes. There are thousands of loads of them in Charlestown, which we have been selling.

WITNESS. — They are dumping it there on Harrison avenue, and you will find any quantity there; and they dump any quantity of it there out of the cesspool wagons. I told them last fall, "You

mustn't bring it here, or I will have the Board of Health after me."

Alderman DUNBAR. — Do you consider the quality of this material that you carried on the Common as good as ordinary loam?

A. Yes, sir; very good.

Mr. VOSE. — Isn't it better?

A. Well, some people like it better.

Q. Isn't first-class street-sweepings better to spread out on grass than loam?

A. A good many farmers are glad to get it.

Alderman VILES. — We sent several cart-loads of it to Lexington.

Mr. WILBUR. — Have you ever mixed any other decaying matter that you have when you have any surplus diggings?

A. We throw it with loam, and mix it up. We dump the loam and all together; dump it any way.

The CHAIRMAN. [At the request of Councilman Danforth.] — Did any of the filling come from the city stables?

A. Not a pound.

Mr. BROWN. — Who buys this material of you? Who makes the trade with you, the Committee on Common and Squares, or the superintendent?

A. The superintendent, sir.

STATEMENT OF E. W. BOWDITCH.

Mr. BOWDITCH. — I have appeared this evening at the desire of a number of tax-payers of the city, who were under the impression that this was to be a public hearing. Nobody that I know of knew that the other was a public one, and it was thought to be a private one. I have come this evening, at their desire, to say a few words about the Common and Public Garden. If it is out of place, of course I have no right to say anything.

The CHAIRMAN. — The committee hear the remarks of Mr. Bowditch. Are they willing to give him a hearing on this matter?

Mr. BROWN. — I move that Mr. Bowditch be heard.

The question was put, and the motion prevailed.

The CHAIRMAN. — Mr. Bowditch, are you a resident of Boston?

A. I am not. I simply appear as an expert on the cost of such work, at the desire of a number of tax-payers of the city.

Mr. VOSE. — Do you come here as counsel for any party or parties?

A. Not that I know of. I have merely certain facts which I have collected that perhaps would be interesting to the committee, and I might be able to answer questions better than the people that have asked me.

The CHAIRMAN. — Will the gentleman state what tax-payers of Boston have asked him to appear here?

A. No, sir. I am not at liberty to do so. I will give the name of one of them. I don't know any reason why not, but I

would prefer not to. I can tell you one of them; he is here with me: Mr. French, — J. D. W. French. Is that sufficient?

The CHAIRMAN. — Yes, sir.

Mr. BOWDITCH. — I have listened with a good deal of interest to the testimony of the witnesses that you have had this evening in regard to the cost of filling and work around the Soldiers' Monument, and I am surprised at several things, amongst others that anybody should purchase filling by the load. What is a load? There is no two men that have the same size loads. Mr. Nawn, I believe, testified that his carts hold twenty cubic feet. I have yet to see a tip-cart that held over eighteen feet. The carts which came on to the Common I did not measure; but some of them, I know, were not full. The material which was in that loam would probably settle twenty per cent., and, when the material is paid for by the load, you cannot tell what you are paying for that material in any particular. It may be double what it is worth.

The CHAIRMAN. — You know by personal observation that some of the carts were not full?

A. I do, sir.

Q. How many of the carts did you notice?

A. I don't remember. I walk in every morning, and saw the carts coming in, and simply saw that they were not full. I would simply say that once last year, when walking in, the question came up how many cubic feet there were in that cart. It had no tail-board in, and there were twelve cubic feet. That was not, by the way, on this monument business. The point I wanted to get at is this: that, although the cost of this work is high, it is no more so than a quantity of other work done on Boston Common since 1867.

Mr. VOSE. — I object to the gentleman going on in this rambling style.

The CHAIRMAN. — I was just going to call the gentleman's attention to the order. The scope of the investigation is confined to the past year.

WITNESS. — I understood from some of the testimony in the early part of the evening, and reading the reports in the papers, that it covered several previous years. Am I wrong in that, sir?

The CHAIRMAN. — Yes, sir. We are merely investigating the doings of the present City Government.

WITNESS. — I beg your pardon. Then, perhaps, I can condense my figures.

The CHAIRMAN. — Or, at least, that is the understanding of the committee, that our scope is merely to investigate the Department of Common and Squares for the past year.

WITNESS. — Yes, sir. Then the only thing I can say, gentlemen, is, that the cost of keeping in order the public grounds of Boston is much greater per acre than those of other cities where the work is equally well done; that is, very much greater than such work ought to cost and could be done by contract in this city.

Councilman THOMPSON. — I would ask if the order passed in the Board of Aldermen and Council limited the investigation to this year; or, in other words, is there any limitation in the order?

The CHAIRMAN. — This question came up for discussion at the last meeting of the committee. This question arose on the additional appropriation asked for by the Committee on Common and Squares of fifteen thousand dollars for this year. It was on that appropriation that this order originated, and not on the expenditures of many years past. The committee considered this matter at their last meeting, and I believe they were unanimous in the opinion that the investigation could not go beyond the present year.

WITNESS. — I would say that the cost of your materials for grading and planting for the grounds around the monument and around the garden is very excessive, and a great deal more than it ought to be. The charge for the filling I am not —

Mr. SMARDON. — Mr. Chairman, may I interrupt the gentleman one moment? I understand that the meaning of that order was misread by the gentleman near me. I wish that the order might be read, so that he can understand it.

The CHAIRMAN read the order, and said, "Mr. Bowditch will please go on."

WITNESS. — The cost of the Boston Common is greater than any equal area to be found either in Philadelphia, or New York, or Brooklyn, so far as I have been able to ascertain. For labor Philadelphia and Brooklyn are higher-priced places than the City of Boston is, and there is no reason why the difference in the cost of labor and materials should be so heavy here. As I said previously, the cost of gravel filling I cannot be certain about; but the cost of loam filling, it seems to me, was very much higher than it ought to be, and I think, had it been advertised for, and outside people allowed to bid on it, it could have been obtained for very much less.

The CHAIRMAN. — What do you consider a fair price for loam?

A. I can simply judge from having worked in the immediate neighborhood of the city. I have never worked, of course, in the city proper, but I have worked at Boylston station on the Providence Railroad. I have had no trouble this year in getting loam carted over three miles for fifty cents a cubic yard; and there were no street-cleanings either, and it was good loam, and loam not by the load, but by measure, as it would be in the pit. The price for sods, it seemed to me, was very reasonable. I don't see how Mr. Nawn could furnish them for any such money. But the loam seems to me very high. If the investigation is simply for this year, I cannot say anything more than this, that the cost of your planting is greater in the City of Boston, where there are one hundred and twenty-three acres of public grounds, than in Philadelphia, which has something over three thousand.

Mr. RUFFIN. — Are you a florist?

A. No, sir; I am not. I am a landscape gardener.

Q. Where do you do business?

A. I do business in Boston.

Q. Can you say that Mr. Nawn's carts don't hold twenty cubic feet?

A. I have never measured Mr. Nawn's carts particularly that I

know of; but I never saw a tip-cart filled in the ordinary manner that would.

Q. Can you say that his carts, which he used for carting loam and gravel and chips to the Common, don't hold twenty cubic feet?

A. No, sir; I cannot.

Q. Have you bought filling and loam to be delivered here in the City of Boston?

A. Within the city limits, but never near by.

Q. Do you know the market price for loam to be delivered within the city?

A. At what time?

Q. During the last summer, — July and August.

A. It depends wholly upon the quantity. I had an offer made to me to deliver loam at Boylston station at thirty cents a yard. It was when I did not want it.

The Chairman. — What is the relation of yard and load?

A. A cubic yard is twenty-seven cubic feet, and measured in the pit always.

Mr. Ruffin. — Saying that these carts hold twenty feet, would fifty cents per load delivered on Boston Common be a fair price?

A. Twenty cubic feet in the cart would hardly be what I meant by cubic feet, because we always measured it in the pit, and never measured it when it is dug out.

Q. But what is called a twenty-feet cart, that was delivered on Boston Common. Would fifty cents be a fair price?

A. That would if it was a single load. If it were five thousand loads I should think not.

Q. What would be a fair price for five thousand six hundred and thirty-five loads?

A. I should think it would be very much cheaper to be delivered by the cars, — delivered on the Back Bay, and carted by your own teams.

Mr. Vose. — What would it cost to deliver loam, taking it from Boylston station?

A. Here?

Q. Yes, sir.

A. I shouldn't get it out there. I should think it would cost more to cart it from there. If it was a large quantity, I should go out on the line of some railroad. It is always more costly close to the city. You go down on the Eastern Railroad, and you can get very good loam.

Mr. Ruffin. — Do you know the price of stone chips and gravel in Boston?

A. About the same price as loam; sometimes it is a little higher, and sometimes a little lower. It depends upon where the place is, and where you have the material.

Alderman Viles. — Wouldn't you charge more if you had to quarry it?

A. It depends upon how much you have to quarry. If you have to quarry simply a few hundred yards, it certainly would; but the chips they don't quarry. I have never quarried any for road-building in this part of the country.

Mr. RUFFIN. — Do you say there are public squares in Philadelphia and New York, and those cities you have mentioned, that are kept equally as well as the Public Garden and Common?

A. I don't think there is the least comparison between our public grounds and the public grounds of Brooklyn, or the public grounds of Philadelphia. The New York grounds I can only tell approximately, because their reports have not been published for some years.

Q. Then you don't consider the Boston public grounds compare with the other grounds for beauty?

A. No, sir; I don't think they are to be compared with them, either Philadelphia or Brooklyn.

Mr. BROWN. — Have you visited the public grounds this year?

A. Oh, yes, sir; I have been there a good many times.

Mr. SMARDON. — I would like to ask him if he wasn't a candidate for Superintendent of Public Grounds two years ago?

A. My name was used, on the understanding that I might have two votes. I believe I only got one.

Q. Did you allow your name to be used for that purpose?

A. Provided it could do any good, to make our parks look better or cost less. What I wanted at that time was to show the people that the cost of keeping our parks in proper order was very high; and I believe now, as I believed then, that the reason our plan for public parks was not carried through was that the citizens thought its cost of maintenance, even after they were first built, would be so heavy that they couldn't afford it.

Q. You allowed your name to be used for two votes, expecting to defeat the present superintendent?

A. No, sir; I thought, if there was an outside candidate, he might look over the books and do better.

Q. Don't you think he has?

A. No, sir; I don't.

Mr. DEE. — Were those the same papers and plans that you had when you came before the nominating committee last year?

A. Only partially.

Q. You came up then to make a charge against Mr. Galvin?

A. No, sir, — not against Mr. Galvin.

Q. But against his management?

A. Against the general management. I don't know whether it is the committee or the superintendent.

Q. You say you have been requested to come here by voters of Boston?

A. Yes, sir.

Q. Can you name any?

A. I named one, and the others I said I am not at liberty to name.

Alderman ROBINSON. — Do you mean to say that the Public Garden is not as well taken care of as the squares of Philadelphia?

A. I don't know that I made it in just that way.

Q. You say there is no sort of comparison between the two. Is it worse or better? Do you mean to convey the impression that the public grounds of Boston don't compare with the squares and Common of Philadelphia?

A. Certainly I do.

The Chairman. — I would ask Mr. Bowditch if it wouldn't cost more to take care of the squares of Boston than to take care of one compact square, — for instance, starting from Commonwealth avenue, the Public Garden, and the Common? Don't the fact that so large a number of squares, scattered over so large a space, and generally so large spaces themselves, make much more work to take care of the department, and make it more expensive than if it were a large park?

A. Very much so, except that on the small, single parks there don't have to be kept so large a police force, and there is not the expense of maintaining the carriage-ways. Those things cost more than anything else.

Q. But doesn't Mr. Bowditch understand that when he undertakes, as he has, to compare the parks of Boston, in regard to the expense of their maintenance, with the parks of other cities, does he not understand that it is as much the fault of the parks themselves as it is the fault of the Committee on Common and Squares, who take charge of them?

A. The point seems to me to be, whether the cost here is uniform. The cost of maintaining the Boston public grounds has steadily grown for the last ten years, and work that was taken by contract in 1860 and 1861 by Mr. Galvin cost last year three times what it did then; and the cost of maintaining Boston Common should depend almost wholly on the current rates of day labor, and nothing more.

Alderman Clark. — Mr. Bowditch has just stated that the cost of the Common and squares has steadily increased during the past ten years; isn't he aware that the Common and squares have increased?

A. The cost of maintenance, I mean.

Q. Isn't he aware that the Common and squares have steadily increased during that time? For instance, one of our Common and squares is Commonwealth avenue, that now extends a mile?

A. Yes, sir; and it is very handsome too.

Q. That has been an increase for the past few years?

A. Certainly, sir; but I believe Boston Common is the same area that it was ten years ago.

Q. But you are aware that Commonwealth avenue and all those small squares of the city are embraced in the expense of Common and squares?

A. Not in what I term as maintenance. I take the same ground covered ten years ago, and the same ground covered to-day, and the cost is very much greater, — very much greater.

Q. Does Mr. Bowditch know the cost of Common and squares ten years ago, and the cost of Common and squares to-day?

A. I know them of certain principal ones. In looking up anything of that kind, I prefer to keep one or two right along. The only two which I prefer to give in order would be the Common and Public Garden. The others are not large enough to amount to anything; but the cost of the Common is very much more than it

used to be. The cost of the Public Garden is not so much more, because it was not finished until 1865 or '66, or somewhere along there. It was not wholly finished, I mean. But the simple cost of keeping in order — I don't mean the new things which have been added — is very much greater now than it was in 1867, and much greater than can be accounted for by any cause which has been named.

The CHAIRMAN. — I hold in my hand a statement from the auditor's department, giving the cost of Common and squares for the last ten years?

WITNESS. — But is that the simple total?

The CHAIRMAN. — The total of all work done on the Common and squares. I find that statement greatly at variance with yours.

A. I think it very likely. I have never made any estimate in regard to totals. But, if you take what really counts — that is, the labor — the increase of ordinary labor on Boston Common from 1868, when it was four thousand eight hundred dollars, up to last year, when it was fourteen thousand seven hundred dollars; and it is the same all the way through.

Q. The statement of the auditor gives sixty thousand six hundred and seventy-one dollars as the total cost in 1868.

A. That is the total of the whole thing.

Q. Yes, for that year. The total this year, so far, is sixty-two thousand dollars.

A. Yes, sir; very likely. I don't question that the least in the world; I have it simply for certain particulars. There is a reason for all those things. If those printed auditor's reports are carefully looked over they will bear me out in everything.

Mr. THOMPSON. — Will you ask Mr. Bowditch whether, when he considers there is no comparison between the public grounds of Philadelphia, Brooklyn, and Boston, he don't mean that they were so different there could not be any comparison?

The CHAIRMAN. — I was about to ask you if you read the testimony of several gentlemen at our last meeting, who testified that the Common and squares are far superior to anything in New York? — and several gentlemen who have travelled abroad stated that our public grounds, especially our Public Garden, were far superior to any public gardens they saw in this country or abroad. Now, do I understand it is a mere matter of taste on your part? For instance, when you criticised the Department of Common and Squares, have you done so from your own standpoint as a matter of taste?

A. From my own, and what I consider to be the general public's. I have never seen anybody outside of Boston, who thought our Public Garden and Common were worth looking at, other than as rather pleasing, from their undulations. In almost all other places the Commons are dead levels. We fortunately have some very pleasant undulations. I don't think our Public Garden — *I know it don't* — compares with any other of the small public gardens. Look at Mr. Hunnewell's, and Mr. Payson's; what does the Public Garden compare with them? None.

Q. Did you ever visit the public park of Baltimore?

A. I have never been at Baltimore, but I am quite familiar with many that have been there, and say it is one of the best-laid-out parks in this country.

Ald. VILES. — For how much money would you agree to keep the Public Garden in the same condition that it has been kept in the past year?

A. I wouldn't agree for any sum, because I never take a contract; but it could be done by contract for very much less money than it costs now.

Mr. RUFFIN. — Do you remember the question put to you by Mr. Thompson?

A. No, sir.

The CHAIRMAN. — Will Mr. Thompson repeat the question?

Mr. THOMPSON. — When you said there was no comparison between the Public Garden and the public grounds of any other cities, whether you meant they were so different in their nature that they could not be compared, — the Public Garden being a square with a few acres, there could be no comparison between it and the great parks of Philadelphia?

A. That is very true, sir. There can only be an approximate. There are no places like the Common and the Public Garden in this country, and the nearest you can get is to take what is most like it. I cannot imagine anything simpler to keep in order than Boston Common. There is nothing but grass and walks.

Mr. RUFFIN. — But this question relates not wholly to difference of form. How does the management of the Public Garden compare with the management of other parks in New York, Philadelphia, and these places?

A. What do you mean by management?

Q. I mean decoration; the plants, shrubbery, and ornamentation.

A. I don't think it can be mentioned in the same day. There are some very good ribbon-beds among the plants in the Public Garden, but the shrubbery isn't trimmed as it should be, and it isn't in the best locations. There isn't half so much made out of the Garden as there should be. The ribbon-beds are very good, as good as ever I saw of that kind; but it is a poor kind for that sort of thing.

Mr. CLARK. — I understood you to give the committee to understand that the public parks of Philadelphia are so much superior to the Public Garden of Boston that there was no comparison between the two. That is how I understand it.

A. I did so.

Q. Now, have you seen the public parks of Philadelphia this year?

A. Not this year, sir.

Q. When did you see them last?

A. I was there last year, at the time of the Centennial, and before that; I used to live there.

Q. Then you think they are superior?

A. Oh, yes, sir.

Q. I never have seen them. Now, do you think the Public Garden and Common have been kept in any better condition than they had been kept?

A. Not in a better condition. No, sir.

Q. You don't think that they have been kept in any better condition than they had been kept?

A. No, sir.

Q. Do you remember that they were ever in any better condition?

A. No, sir; but the good condition is very much owing to our spring rains.

Q. We agree to that. Do you know anything about the cost of carrying on Mr. Hunnewell's or Mr. Payson's gardens?

A. No, sir.

Q. You are a practical landscape gardener, and use loam?

A. Yes, sir.

Q. What do you pay for loam in Boston?

A. It depends upon where in Boston I work.

Q. Suppose you worked on Arlington street?

A. I never worked there.

Q. Or on Commonwealth avenue, or upon the hill? What do you pay for loam?

A. I have never worked within two miles of City Hall that I know of; perhaps two and a half.

Q. What place will you mention?

A. I have never worked nearer than Boylston station.

Q. Never in Longwood?

A. No, sir; that is in West Roxbury.

Q. You say it costs a great deal more than it used to in 1861 to carry on the public parks and squares?

A. It costs more now; yes, sir.

Q. I suppose you are aware that there has been some annexation to Boston since 1861?

A. Yes, sir.

Q. I suppose you are aware that the Common has formerly kept itself, and that an attempt has been made to keep it as a lawn; whereas it used to be mowed once or twice a year, and the mowing sold for fodder?

A. Yes, sir.

Q. And of course it must require a greater number of men than it would to mow it twice a year?

A. Yes, sir, certainly.

The CHAIRMAN. — Is it more expensive to carry on the Common in the wet season than in the dry season? This present season has been unusually wet.

Alderman CLARK. — Does the grass require cutting any oftener?

WITNESS. — Yes, sir, it has to be cut oftener, but it looks correspondingly better for it.

Mr. THOMPSON. — Will you ask Mr. Bowditch about how many men should be employed for the care of the Common and Public Garden?

The CHAIRMAN. — How many men do you think it would be proper to have for the Common and Public Garden?

A. That is rather a hard question to answer, because I don't know the length of the walks, nor the areas of the flower-beds. Those are things which are troublesome. But we usually estimate that on private places one man can look after two acres perfectly well. That is all I can tell you about it. I could not give you any other figures.

Q. Two acres laid out in the style of the Public Garden and Common?

A. Laid out in a style something between the Common and Public Garden, because on a private place it is different.

Mr. Galvin. — Where have you had experience?

A. Whereabouts? In what part of the country?

Q. I should like to know where you have worked?

A. All over New England and Pennsylvania.

Q. Name one place.

A. Boston, Medford, Brookline, Readville, West Roxbury, Dedham, Hyde Park.

Q. We all know those places. Will you mention a place where you have done landscape-gardening?

A. What particular place would you like to know?

Q. Any gentleman's name where you have laid out a place.

A. Mr. Wolcott's place, at Readville.

Q. I beg your pardon; didn't Mr. Walcott remove you and get another man to do the work?

A. No, sir.

Q. I think I can prove it.

A. Medford; would you like to know about Medford, sir?

Q. I know where Medford is, very well.

A. Mr. Harris Hall's place, at Medford. Would you like to know any more, sir?

Q. How large a place was that?

A. Mr. Hall's? It is simply guesswork, — I should say thirteen acres.

Q. How many men did you ever employ at any one time, — the largest place you ever worked on?

A. A hundred and fifty.

Q. Where?

A. On Ridley park, Pennsylvania; six hundred and forty acres.

Q. Well, now, I should like to ask Mr. Bowditch in what way is the Public Garden inferior in its planting to other public grounds which you have seen?

A. I don't wish to criticise Mr. Galvin.

Q. You have criticised me, and now it is my turn.

A. As a personal matter I don't know whether the planting has been carried on under his direction or of the Committee on Common.

Q. I have acted under the direction of the committee.

A. Then it is the Committee on Common.

Q. Now I should like to know how you can improve the planting that is there?

A. I can't improve it. I should take it all out.

Q. Do you know what kinds of plants are planted there?

A. I have looked at them.

Q. What kinds of plants are planted there?

A. I object.

Mr. GALVIN. — That is just what I expected. I supposed you would.

The CHAIRMAN. — I should say that the witness certainly ought to answer that question. It was a fair question, — what kinds of plants were planted there? He comes up here to criticise the planting of the Public Garden, and it was his duty to answer that question.

WITNESS. — I don't know that I ever objected to the kind of planting. It is the arrangement of them.

Mr. GALVIN. — I asked you what variety of plants there are, as civilly as I could.

A. I suppose you would like me to give you an inventory of the plants and the names.

Q. The city has an inventory of them.

A. Yes, sir; I suppose they have.

The CHAIRMAN. — Will Mr. Bowditch allow me to revive his recollection? He stated that some plants are not placed in the proper place.

A. Did I say plants or shrubbery?

Q. I understood you to say the plants were placed in improper places.

Mr. WILBUR. — Did you not make some allusion to the ribbon-beds?

A. Yes, sir; I said that the ribbon-beds were as fine as any I had ever seen. If they are Mr. Galvin's work, I should like to take some lessons in ribbon-beds.

Mr. GALVIN. — As you have worked in Pennsylvania and other places, what do these plants cost?

A. I have never estimated them.

Q. You have come as an expert, I presume?

A. But I have never estimated on the cost of the plants.

Q. Are you posted in the cost of plants?

A. No, sir; except for my business.

Q. Do you think we could procure those plants for six thousand dollars?

A. No, sir; I do not.

Q. Do you think they could be procured for fifteen thousand dollars?

A. No, sir. But the point I wish to bring out is that the cost of planting in Philadelphia, and the cost of running greenhouses, and all other planting of three thousand acres, is less than is paid by the City of Boston.

Mr. THOMPSON. — I wish you would ask Mr. Bowditch what he thinks of the system of selling out plants annually and buying a new crop every year; if he thinks that is a good and economical system for the city to pursue.

The CHAIRMAN. — Will Mr. Bowditch please answer that question?

A. I don't think you could have a more costly one.

Q. How would Mr. Bowditch take care of the plants in winter?

A. In greenhouses.

Alderman CLARK. — You would recommend having a greenhouse?

A. Certainly, yes, sir. That is what I should have done.

Alderman CLARK. — The committee haven't felt that they could come to the city and ask for fifty thousand dollars for a greenhouse.

Mr. HOWES. — How much would a greenhouse cost for the Public Garden?

A. You simply mean one that would be useful, and not particularly ornamental?

Q. Yes, sir.

A. I think you could build one for two thousand five hundred dollars.

Mr. GALVIN. — How many plants can you raise in a house built for two thousand five hundred dollars?

A. You can probably tell better than I can, because you know how closely you can pack them; but I know this, that a house can be built sixty feet long and fifteen feet wide for eight hundred dollars. I had an offer from a man to build a house for me for eight hundred dollars.

Mr. DEE. — With a boiler and everything?

A. Without a boiler.

The CHAIRMAN. — Would a boiler be necessary?

A. It would cost about the same. It would be necessary.

Mr. GALVIN. — Whose boiler would you recommend?

A. Smith & Lynch's.

Q. That is a good boiler. How many plants could you raise in that house?

A. I should have to look in my books for that.

Q. You must have a good idea of that, if you have to go back to your books.

A. I could not tell you now.

The CHAIRMAN. — How many men would it take to carry on that greenhouse during the winter season?

A. A portion of the time, two men, but most of the time only one.

Q. And how much would it cost for coal?

A. That is a thing I don't recollect; but I can tell you what it cost to run the greenhouses for Fairmount park, and those are very large. It cost — if you will let me look at my list here, I will tell you what it cost [referring to papers]. The maintenance of the greenhouses for propagating and preserving plants through the winter is about two thousand dollars a year, and three thousand dollars more for planting and maintaining flower-beds; one thousand dollars to one thousand five hundred dollars for the maintenance of a nursery for young trees. That is sufficient for all their parks.

The CHAIRMAN. — Would Mr. Bowditch put up such a greenhouse as he describes on the Public Garden?

A. Oh, no, sir; I should put it up in the outlying districts. I should suppose one of Lord's ornamental greenhouses could be built there. They are the handsomest houses, I think. Who has the handsomest houses, Mr. Galvin?

Mr. GALVIN. — I don't know. I make a design for my own greenhouses when I build.

G. A. SHAW. — I think I understood you to say that in your opinion the public grounds of Philadelphia were far superior to those of Boston; in fact, there was no comparison, that those of Philadelphia were so far superior to Boston?

A. Yes, sir.

Q. That is your opinion?

A. Yes, sir.

Q. And I think you said it was public opinion?

A. I said I thought it was. Of course I cannot tell.

Q. Did you ever hear any resident or tax-payer in Boston say so?

A. Yes, sir; I heard two of them this evening.

Q. Who were those two?

A. One of them is here with me, — Mr. French.

Q. Who is Mr. French?

A. J. D. W. French.

Q. What is his business?

J. D. W. FRENCH. — I am the gentleman, and I can tell you.

Mr. SHAW. — I am asking Mr. Bowditch.

WITNESS. — I suppose he can tell you better than I can.

Q. What other person did you ever hear say those parks are far superior to Boston?

A. The other one I heard this evening was Dr. Lewis Sturtevant. Although he isn't a voter, he is a tax-payer in the city.

Q. Those are two. Do two tax-payers of Boston express public opinion?

A. I hope not.

Q. Then it is your opinion, and those two, and none others?

A. Those I have heard this afternoon.

Mr. CAPEN. — I will name two others.

Mr. SHAW. — I am talking to Mr. Bowditch. Whether any others have expressed this opinion?

Mr. WILBUR. — I object to the —

Alderman VILES. — I think the examination is taking too much latitude.

Mr. WILBUR. — You say you have reason to believe that the Common and public grounds — did I understand you to say, at least, that there was a greater expense, or that they were carried on at a greater expense than they should be, or that they cost the city more to maintain them than they should now?

A. I don't know that I said so; but I will say so now. That is my opinion.

Q. How do you arrive at that opinion?

A. Simply from my professional work, and seeing what they cost in former years.

Q. If I understand you, you are an expert and a landscape gardener?

A. Yes, sir.

Q. Do you consider that the Public Garden would come under that scope?

A. I suppose it would, sir.

Q. You stated that you thought the Public Garden could be kept at much less expense than it is now?

A. Yes, sir.

Q. Well, how do you arrive at that conclusion?

A. Well, I have arrived at it from the cost of the material and the labor; and the cost of plants is very great. I think Mr. Clark will tell you that the cost of the plants every year on the Public Garden is a great deal more than it need be if you had a greenhouse.

Q. I understood you to say—when the question was asked you what kind of plants was in the Public Garden, you replied you didn't know. You didn't answer the question.

A. I suppose there are a thousand varieties there.

Q. Did you mean to convey the idea that they were cheap plants?

A. No, sir; nothing of the kind. They are good plants, first-rate plants. The plants as a whole are very good. I don't think anybody would question that.

Q. The only question is, you don't think that they are artistic?

A. I don't think they are artistic, and they cost more for materials, for gravel and filling, and all that sort of thing.

Q. Didn't you state you wouldn't be willing to take it by contract?

A. Certainly, because I never do anything by contract, and never take a contract.

Q. The question was asked you whether you thought it could be kept any cheaper.

A. By contract? Certainly. There is no kind of landscape-gardening work that cannot be let out by contract.

Q. Now you are an expert, and you have given it as your opinion that a greenhouse would be far cheaper to maintain than it would to buy the plants.

A. Yes, sir.

Q. You say fifty per cent.?

A. Fifty per cent. on the total cost. I should say so. I believe I am right in thinking that the plants last year cost eight thousand dollars; and I see no reason why a greenhouse should cost eight thousand dollars to maintain.

Q. How would you manage in keeping plants through the winter, and getting ready for the spring?

A. You have the plants set out, and you can take cuttings from them and propagate.

Q. You mean to take plants from the same plants in the garden?

A. Why not?

Mr. WILBUR. — I only wanted to get information, as I am not acquainted with this business.

Mr. THOMPSON. — Please ask Mr. Bowditch whether he has examined the trees upon the Common, and what is his opinion as to their present condition and care?

A. He asks me what the present condition of the trees is?

The CHAIRMAN. — If you have examined the trees lately, and what is their present condition?

A. Not particularly lately. I have not looked at them particularly. I think they are in fair condition, nothing more. I think it is a mistake to keep setting out elm-trees there. I think the soil has been used up for that kind of a tree. You ought to set out something else that would do well. I don't know that I have looked at them otherwise particularly.

Alderman DUNBAR. — You think the care bestowed upon the trees that are there is all that is required?

A. I should think that they had sufficient care. Yes, sir, I don't know that I should do it in just the same way. Perhaps I might under these general circumstances.

The CHAIRMAN. — Early in your statement you made the remark that the cost of loam delivered on the Common appeared to be very large?

A. Very large, where there is any.

Q. Afterwards, when asked the question by the chairman of the committee who are now on trial, you said you knew nothing about the price of loam delivered beyond Boylston station?

A. Yes, sir.

Q. Now, how can you make a comparison with the loam delivered on Boston Common, when you really stated you did not know the cost of loam delivered in any part of the city?

A. I can only state by knowing where it comes from and how far they carted it.

Alderman CLARK. — Then I will ask you, suppose the loam to be carted from Boylston Station to Boston Common?

A. I should think it would be a fair price.

J. B. BRYANT. — I would ask Mr. Bowditch if he has observed, as he passed over the Tremont-street mall, the condition of the stumps of the trees that have been cut down there, and the branches of the trees where the pruning has been done?

A. Yes, sir.

Q. And whether or not any trees have been cut down which appeared by their trunks to have been sound when cut?

A. Yes, sir.

Q. And as to the pruning and trimming and lopping of branches?

A. I believe I said I might do differently from that. I suppose those trees along there were hurt more by that curb than by the pipes laid there and the gravel walks.

Alderman CLARK. — You think the trees were hurt by the curb that was put down?

A. I think very likely.

Q. You think it would have been better not to put any curb down?

A. No, sir, I don't say that.

Q. You say they were hurt by the curb?

A. Yes, sir.

Q. And then it would have been better not to put the curb down?

A. Very likely.

Mr. BRYANT. — Do you think the trees on the Tremont-street mall, and particularly the large, old trees, have been seriously affected by the sidewalk?

A. No, sir.

Q. Do you think the perfectly sound trees needed to be cut down?

A. No, sir, I do not.

Alderman CLARK. — Do you know, of your own personal knowledge, whether any trees have been cut down that were decayed?

A. They might have been a little mite decayed, but not enough to warrant cutting for that reason.

Mr. BRYANT. — Have you observed one stump in front of Chickering's, — a large stump that was entirely removed?

A. No, sir, I have not. I don't think it particularly pleasant to go around that way. I have gone around some other way.

Mr. VOSE. — In your judgment, are there too many trees on Boston Common?

A. No, sir, I don't think there are; but a great many of them have used up the soil.

Q. Have you noticed the grading on Boston Common around the Soldiers' Monument?

A. Yes, sir.

Q. How many thousand feet should you think had been graded there?

A. I could not tell you.

Q. You are a landscape gardener, and could give some idea.

A. I never guess on a thing of that kind, sir; I always take the levels there first, and take the levels afterwards, and measure by the cubic yard, and you can tell.

Q. You could tell exactly?

A. No, sir, you couldn't tell how much settling there had been.

The CHAIRMAN. — Can you give an idea of the expense of a horse and tip-cart and man, or a driver, per day?

A. Just now?

Q. Just now.

A. I can hire them for the cost for the feed of the horse. I was offered this afternoon — a man offered to work for me this afternoon if I would give him enough to pay for keeping his horse.

Q. You have heard the common remark, "that it is about the size of a piece of chalk." Your answer is about the same way.

A. We usually don't hire them in that way. We hire two horses and one driver. One driver is able to look after two carts. I could not tell you at the present time what two carts are worth; but in ordinary times I should say three dollars and fifty cents for two carts and a man.

Q. For two tip-carts and a man?

A. Yes, sir.
Q. And two horses?
A. Yes, sir.
Q. Three dollars and fifty cents?
A. Three dollars and fifty cents.
Mr. WILBUR. — Wouldn't it require more than one man?
A. No, sir, and frequently that man would be a boy.
Mr. BURKE. — Wouldn't it require somebody to fill the cart besides the one teamster?
A. Certainly, sir; but when you are hiring carts you simply hire the cart and driver. In almost all our work we hire two carts and one driver.
Ald. CLARK. — Do you know whether it is against the law for one man to drive two carts?
A. I do not know.
Ald. CLARK. — There are two legal gentlemen here, and I should like to know.
Mr. THOMPSON. — I don't know, but I have seen it done several times.
Mr. WILBUR. — Have you had experience in setting out trees?
A. Some.
Q. Has your knowledge or attention been called to the trees on Chester park?
A. It has been called some; but I have never looked at them, I have seen them while going along.
Q. Have you had any experience in setting out trees where there are large poplar-trees in close proximity?
A. Yes, sir, we frequently set out poplars; when we are working in a very windy place we set poplars out first, and set out the others close up to the poplars.
Q. I mean have you had any experience in setting out trees where there are poplar-trees growing?
A. Yes, sir.
Q. Have you ever had any difficulty in making them live?
A. You mean on account of the poplar-trees?
Q. Yes, sir.
A. No, sir. They don't grow quite so vigorously, of course.
Q. Does it affect them?
A. Yes, sir, it always does; not particularly the poplar-tree; any tree would.
Q. Is there anything in regard to the roots of the poplar-tree that would affect a tree set out in its immediate vicinity?
A. I think very likely they would retard the growth of it, but no more than the elm-tree would.

STATEMENT OF WILLIAM B. SMART.

Ald. CLARK. — Have you visited the public squares of Philadelphia and Baltimore recently, or within a year?
Mr. SMART. — Never in Baltimore. I have been in Philadelphia and Brooklyn.

Q. What is your opinion with regard to the way and manner in which the public squares and parks are kept, — whether our Common and Public Garden is kept in the best condition, and is not a most attractive spot so far as you have observed?

A. That is a difficult question to answer. In regard to the public grounds of Philadelphia and Brooklyn, they are so much larger in extent than ours are; but in going over Fairmount park, and the new Prospect park in Brooklyn, and the Lafayette park in St. Louis, I failed to see the same number of acres, as are in our Public Garden in Boston, that were handsomer or better laid out, as it seemed to me. Of course I am not a landscape gardener; but I take what pleases the eye generally.

Q. In your opinion no eighteen acres are laid out and kept in better taste than the Public Garden?

A. No, sir; I never saw eighteen acres so well kept.

Q. Do you think, as Mr. Bowditch has put it, that there are any eighteen acres which would compare with the Public Garden?

A. I don't think there is.

Ald. CLARK. — Mr. Smart is a reporter for the "Post," and has travelled extensively.

STATEMENT OF W. F. HUTCHINS.

Mr. CLARK. — As Mr. Hutchins is one of the reporters of the "Boston Journal," I would like to know whether he visited the parks of Philadelphia or any other cities during the past year?

A. I was in Fairmount park last July, this year, and also at Central park.

Q. I would like to know what is your opinion in regard to the twenty acres of the Public Garden, — how they compare with any twenty acres in any of the public parks you have visited?

A. Fairmount park, in many respects, is not to be compared with our parks about here. Nature and art have both done very much for Fairmount park; but I have never seen anything like our Public Garden.

Q. Have you heard gentlemen who have travelled abroad express such an opinion about it?

A. A great many. It is a common remark. A large number of people who come into the city on the Providence road go round by the Public Garden, and it is a common remark.

Q. It has been the custom, this season, to come in that way from out of town?

A. More people went through the Public Garden probably this year than ever before; and it is a common remark, every day, that no spot they ever saw comes up to the Public Garden in beauty.

The CHAIRMAN. — Did you attend the Episcopal Convention in the capacity of a reporter?

A. I did not.

Q. Are you aware of the fact, or do the papers state truly, that these gentlemen from all parts of the country were so impressed with our Public Garden that they said it was the handsomest and finest spot in the country?

A. I have no knowledge of it; but I have seen many people from other parts of the country who have made that remark, — a great many people.

STATEMENT OF J. D. W. FRENCH.

Mr. FRENCH. — As a citizen of Boston and a tax-payer I have had occasion, for five or six years, to almost daily cross the Public Garden and Common. I think, sir, that the expenditures have been extravagant on the Public Garden; not but what citizens would justify the expense, provided we got an adequate return, sir, which I do not believe we do, compared with the other parks in America, and as regards the expense laid out there.

I think there is one point in the Public Garden that does Mr. Galvin credit, and that is the arrangement of the ribbon-work along the walk across the bridge. It is very pretty, indeed; and that seems to be a style of gardening of which Mr. Galvin is fond, and that seems to be his favorite mode. And I notice from year to year that the style increases. It is cutting around the corners, and running down the sides. Perhaps we can account partially for this style of gardening when we find that Galvin Brothers sell six thousand dollars' worth of plants to the city every year. Gentlemen who are not sure of a sale in the spring do not cultivate so many of these perishable plants.

Now, sir, in regard to the rest of the Garden, I notice that gentlemen have tried to draw out a favorable notice of the Garden. Until this year not a rhododendron was to be seen in the whole Garden; and there is not a callium, and not an evergreen, to-day, except a few long, straggling ones. The shrubbery beds are all mixed together, and it is not properly pruned. I consider the shrubbery in that Garden mutilated. On what system it is pruned I will not attempt to say. Frederick Law Olmstead, who is authority on such matters, laughs at such stuff as that.

Let me quote an authority on this subject, — Henry Winthrop Sargent, — who has written books on Boston Common, and is authority here and abroad on landscape gardening. In the papers last winter there was some discussion in regard to the beauty of the Public Garden, and Mr. Sargent answered one of those communications, in which a previous writer had said it looked as if it were planted in the dark by the light of a lantern; and he said it looked as if it had been planted on a tombstone. He called it hodge-podge gardening; and he said there was only one thing to do, and that was to replant the whole garden.

No, sir; a garden that is in a city should be a winter as well as a summer garden. There are more people in the city in winter than there are in summer. As I said, there are no evergreens in the Public Garden that deserve the name of evergreens; nothing to make it look cheerful; nothing but bare stems and scraggling bushes, — and mutilated at that.

It is difficult to talk about its defects, because they are so many. Another thing you might mention: there is not a bed of hybrid perpetual roses that deserve the name. Things are all mixed up

together. It should be a garden of instruction. I notice that for the first time this year the names are affixed to plants, so that people may read them. That thing ought to be carried out through the whole garden. I hope that will be done. I did hope that at this centennial time we should have reform in this matter. I hope we shall have a garden worthy of the City of Boston, which I do not think it is now. I do not think you can find six competent landscape gardeners in the country, who will come here and tell you that the Public Garden is a success in any way whatsoever, either in regard to planting or arrangements, bring them here in what month you please.

Mr. Wilbur. — Have you any knowledge of any of the other squares?

A. I have of the Common. As I said, my walk is chiefly across the Common and the Public Garden, and I know more of those two squares than of any others.

Q. Your attention has never been called to any other squares?

A. Yes, sir, I have talked with gentlemen about it very often. They seemed to think the expense was excessive, as compared with what we get.

Q. You would favor a more expensive system in the Garden than we now have?

A. I favor greater results for the same money.

Q. You would go for having it more beautified?

A. Certainly, sir.

Q. Do you consider that it should be particularly confined to that one locality?

A. No, sir. I only speak of that as I am familiar with it. I think the same style should pervade the whole city.

Q. Do you think that, for the greater amount laid out there, it compares with the other squares of the city?

A. The greater amount that we get for it? I don't know the amount spent on the other squares. I know the amount spent on the Public Garden is about six hundred dollars per acre. I think that is about it.

Q. As I understand you, you would make it rather a field for instruction?

A. Certainly; it can be without any further cost.

Q. It couldn't be in the other squares?

A. It could not be so well carried out as it could where there are not so many plants, and beds, and shrubbery. You can arrange them in families, and label them.

Q. Do you think any influence has been brought to bear in that locality around the Public Garden, any influence upon the Committee or the Superintendent of Public Grounds, to do any more to beautify them than any other squares?

A. I don't know. If any influence has been brought to bear, he certainly has not carried it out. He has done no more than his duty, so far as I can see.

The Chairman. — What is Mr. French's experience in gardening?

A. I am a gardener, but not a professional gardener. I was

brought up and reared on a place that was considered a beautiful place in its day, although it has passed away. I own now a place in the country of nearly two hundred acres, although I do not make a garden of it, for it is more of a farm than a garden. I planted some fifteen thousand trees this year. I have had some experience in tree-planting.

Mr. WILBUR. — You speak of the plants being furnished by Galvin Brothers; have you any reason to believe that they could have been purchased lower from anybody else?

A. I cannot say. I simply read in the paper that six thousand dollars' worth of plants had been purchased from Galvin Brothers.

Q. There have been a great many things in the papers.

A. That was the report of the Committee on Common.

Q. You made an allusion to it. I wanted to know if you thought there was any undue influence brought to bear.

A. I don't know that there was.

Q. Do you know the system by which plants are purchased?

A. I don't know whether it is done by contract; whether it is always done by contract I cannot say.

Q. Do you think it should be done by contract?

A. I should think it should be.

Q. Would you favor the city building a greenhouse and raising its own plants?

A. I shouldn't under its present management. I shouldn't under a management that I consider faulty.

Q. Do you think a saving could be made?

A. I think there would.

Mr. RUFFIN. — You mention the lack of certain plants and flowers on the Common. To provide those, would it be at a greater or less cost than is now expended on the public grounds?

A. The first cost would be greater. After that it would be maintenance. Here you have that annual expense for planting every year. If you put those shrubs in, and if they are properly treated, they will live forever, and they will improve every winter.

Q. Will they live through the winter?

A. Yes, sir, certainly. The rhododendron requires some protection in this climate.

Mr. THOMPSON. — I would ask whether the flowers in the Public Garden are not of the ordinary kind, which can be easily procured in the market by competition?

A. Some of those plants, such as the geraniums, could be purchased, probably, from almost any gardener. There are some not so commonly grown, that might be obliged to be grown beforehand. There are such quantities that it would be difficult to buy them in one garden, unless the gardener knew he would be required to grow them.

Q. Whether there is any advantage in knowing beforehand what will be required?

A. I should judge that in a large contract like that there would be very few gardeners who could supply them unless they knew beforehand that they would be required to supply them.

Mr. Ruffin. — Are there any public gardens in the United States having this class of shrubs that you have been speaking about?

A. Yes, sir; undoubtedly.

Q. Where?

A. You refer to rhododendrons and calmias, and those sorts of plants?

Q. Yes, sir.

A. I should judge there would hardly be a public garden where they would not be.

Alderman Clark. — Do you know whether there are any rhododendrons on the grounds this year?

A. Certainly; for the first time they were put there this spring.

Mr. Smardon. — Have you any idea what those rhododendrons cost?

Q. Some of them are of very good size, and I should judge that according to the size they can be bought in England for from fifty to seventy-five cents apiece.

Q. You don't know whether you can buy them for fifty or seventy-five cents apiece?

A. I am sure you can.

Q. Will you furnish them for a dollar and a half apiece?

A. I should be glad to do it.

Alderman Clark. — We don't want any thinking; we want to know of your knowledge of the prices of rhododendrons, such as were put out in the Public Garden last spring.

A. I should judge that the expense of laying them down here would not be a dollar apiece.

Q. That is your judgment?

A. I should judge that I know what I say, as I imported them myself this spring.

Q. We are prepared to show where those came from, and what they cost, and that they were imported expressly for the city?

A. Might I ask what firm imported them from England?

Q. I cannot answer it. Mr. Kelsey furnished them, and Mr. Kelsey was recommended by Mr. Sargent and Mr. Hunnewell. They came from Waterer, in England. It was suggested by some gentlemen that plants of that character should be put out, and we have put them out at quite an expense. Suggestions have been made that spring flowers should be put out there, as Mr. French says they should be, and arrangements have been made for the coming season. What has been your practical experience as a horticulturalist? Have you had any practical experience for the last ten years?

A. Yes, sir; I have owned a place of nearly two hundred acres.

Q. Where?

A. In North Andover, Mass.

Q. Have you kept a twenty-acre flower-garden?

A. I have kept a flower garden.

Q. You have a milk farm?

A. I raise milk for market.

Q. Is it a good hay farm?

A. Yes, sir.

Q. How many men do you employ?

A. I employ from four to five men during the year.

Q. Now, do you know any eighteen acres that will present a more beautiful appearance than those eighteen acres in Boston, — any other public park or square in the United States? If you do, will you please to mention it?

A. I cannot make comparisons.

Q. That is what we want; we want comparisons now.

A. It don't seem necessary to make comparisons. I take the thing just as it is, and the thing speaks for itself without comparing it with other grounds.

Q. You have travelled extensively abroad?

A. Yes, sir; I have lived abroad.

Q. How do those twenty acres compare with any twenty acres in the neighborhood of Paris?

A. It is difficult to compare, because there is no such plot of land.

Q. Such a one cannot be found in Paris, — that is what you mean to say, I suppose?

A. You can find very beautiful grounds there; but to take eighteen acres out there and compare them with eighteen acres here, is difficult. You cannot take the whole grounds of Paris and compare them with those of Boston.

Q. Do you expect to find in twenty acres, reclaimed from the sea, — can you expect to find so great a variety of trees and shrubs as where they have been growing for one hundred and fifty years?

A. I think we should, but not so great a variety. But I cannot see, until this year, that there has been a great attempt to put in any new plants. For ten years there has not been an evergreen.

Q. There were no plants and flowers there to any great extent ten years ago.

A. Yes; but your plants and flowers are perishable. Any person in laying out ground plants for the future, — they put in trees, and the trees grow from year to year. If proper trees and shrubs had been planted there ten years ago, you would have had the advantage of them.

Q. Would you cover the Public Garden with trees and shrubs, instead of flowers?

A. No, sir; I should not.

Q. Then you would have plants and flowers there?

A. I would have plants and flowers there, to a certain extent. I shouldn't plant a tree at each corner of the Washington monument.

Mr. RUFFIN. — Are there any twenty acres in Paris that would compare with the twenty acres here?

A. When I was abroad, I didn't travel with the idea of comparing the Public Garden with anything there; but, from my own

observation, I think the parks abroad are kept in much better order and shape than they are here. Take the garden around the Tuileries, — there is quite an extent there; I do not know how much; but when I was there in 1866 and 1867, certainly the arrangement was very beautiful indeed; much more beautiful than here. So take the Kew Garden, in London; I will take twenty acres there and compare it with twenty acres here any time.

Q. (By Mr. RUFFIN.) That is in London?

A. Just out of London.

Q. (By Alderman CLARK.) How many acres?

A. I cannot tell exactly.

Q. About how many?

A. I cannot tell. I should think fifty or one hundred. It is longer than the Public Garden.

Q. Have you any idea how much the plants in that garden are worth, and what it would cost to introduce them into Boston?

A. Well, sir, I did not travel with the idea of asking the cost of everything.

Alderman CLARK. — You ought to have some opinion about it.

Q. (By Mr. SMARDON.) Did you go into the greenhouse of Kew Garden?

A. Yes, sir.

Q. (By the CHAIRMAN.) Can you inform the committee from what standpoint you make your comparisons, when you criticise the Common and Public Garden?

A. I do not understand you exactly, Mr. Chairman.

Q. You say you can make comparisons with other places. Do you form your judgment from your own idea of what such a place ought to be?

A. I did make a general comparison by taking the garden about the Tuileries and the Kew Garden in London, as being the two places which I now remember particularly — it is now ten years since I was there — as being very beautiful indeed. I think the arrangement of the flower-beds and grounds there was superior to that at the Public Garden.

Q. (By Alderman CLARK.) Are you a resident of Boston at the present time?

A. Yes, sir.

Mr. JOHN D. BRYANT. — Mr. Chairman, will you ask Mr. French if he has examined the stumps of the trees along the Tremont-street mall?

Mr. FRENCH. — I am sorry to say, Mr. Chairman, that I have not. It is not on the line of my walk, and I have no personal knowledge with regard to them.

Q. (By Mr. WILBUR.) I would like to get at how this comparison is maoe of the Public Garden with the garden of the Tuileries and the Kew Garden in London?

A. I told Mr. Clark it was difficult to make a comparison between them, by taking a solid eighteen acres here and comparing it with eighteen acres in Paris or London, or wherever it may be. He pressed me for an answer, and I told him with regard to these two, as I remembered them particularly, and I said they were su-

perior in the arrangement of plants and shrubs to anything we had here.

Q. Does the arrangement of walks anywhere compare with those of the Public Garden?

A. In the matter of walks, I should not say there was much comparison to be made; it never struck me so. I spoke particularly with regard to the arrangement of flowers and shrubs.

Q. Was there more evergreen?

A. Certainly, sir.

Q. Is that one of the leading points of their beauty?

A. That is a point you will always find in almost any public garden abroad, or in any private garden of any extent, — a fine collection of evergreens.

Q. Is not this a matter of opinion with regard to the beauty of the different modes of gardening; a matter of personal taste?

A. Certainly, sir. Then there is a standard of landscape gardening; there are books written upon it, which are standard works, or which people, who are familiar with it, would hold up as standards, and which every gardener should endeavor to attain to. Of course, everybody has personal opinions on landscape gardening, in regard to arrangement and style.

Q. Do you think, Mr. French, that the introduction of more evergreens on the Public Garden would give a greater general public satisfaction with the arrangement of the Public Garden than is now felt?

A. I think so, decidedly; because in winter, particularly, the bright green foliage of an evergreen is very pleasant to look at. We have nothing of the kind. At the present time there are a great many new and beautiful varieties of evergreens. A great many of them are dwarfed, do not grow high, and some of the most vigorous stand pruning very well, and can be kept down. It is not necessary to grow great tall pines there.

Q. You think it would make it look more beautiful in the winter?

A. Certainly; decidedly.

Mr. THOMPSON. — I would like to have the chairman ask Mr. French in regard to the comparison of parks, if he remembers in Paris the Bois de Boulogne, or the Parc de Monceaux, or the Park de Neuilly, — three parks which compare in size with our Public Garden?

Mr. FRENCH. — I remember the Parc de Monceaux. It is up by the Tuileries.

Mr. THOMPSON. — Yes, sir.

Q. (By the CHAIRMAN.) What is the comparison between that park and the Public Garden?

A. Well, sir, as I remember it — I say it is ten years since I was there — as I remember it I think the arrangement there is especially with reference to the trimming and arrangement of the shrubs. With regard to the walks I cannot say so much; but the system of planting shrubs and the arrangement of them is far better than anything in the Public Garden, — infinitely.

Mr. THOMPSON. — I would like, Mr. Chairman, to have you ask

Mr. French whether, with this expenditure of fifteen thousand dollars a year upon the Public Garden for labor and flowers and plants, with such a result as has been obtained, a better result might have been produced; and whether, with an expenditure of that kind, within five or ten years a garden which would be in a great degree self-sustaining ought not to be produced?

The CHAIRMAN. — Mr. French, will you answer that question?

Mr. FRENCH. — Will you repeat the question?

Mr. THOMPSON. — Whether, with an expenditure of fifteen thousand dollars upon the Public Garden for labor, flowers, and plants, a better result might have been obtained, and whether, with an expenditure of that kind, within five or ten years a garden which would be in a great degree self-sustaining ought not to be produced?

Mr. FRENCH. — The expense now, I think, is about twenty thousand dollars.

Mr. THOMPSON. — This past year, I think, the expense of the Public Garden was eighteen thousand dollars.

Mr. FRENCH. — I should judge, Mr. Chairman, that fifteen thousand dollars would be ample to carry it on.

Alderman CLARK. — I would like to have Mr. French give the basis upon which he makes his estimate; what experience he has had.

Q. (By the CHAIRMAN.) What experience, Mr. French, can you give to the committee?

A. I say, Mr. Chairman, that in making a reformation in that Garden there must first be a large outlay, because the whole Garden needs replanting; you have got to begin at the beginning. After you have properly planted it, then the expense will be only for maintenance, except for your few flower-beds. I would reduce the expense by not having so many ribbon-beds about there; they are not necessary at all. A few of them are very pretty, but when you extend them all around the walks it is tiresome to the eye to see so much. It is as if you saw so many strings of ribbon, — black, white, red, and all sorts, — it is tiresome to the eye. I would cut off expense there. It could be very readily done. The expense, I see, is six thousand dollars in plants; then when you have replanted and rearranged the Garden, — the expense of that would be large, no doubt, — after you have got it all replanted, and your shrubs and trees in where they ought to be, the expense will be merely for maintenance.

Q. (By Mr. WILBUR.) One more question, Mr. French. Do you remember under what management those parks are carried on?

A. Do you mean the Parc de Monceaux?

Q. Yes, sir.

A. I cannot tell you in regard to that.

Q. (By Alderman CLARK.) Do you know anything about the expense of carrying on Mr. Hunnewell's place?

A. No, sir; I am not sufficiently in his confidence to know that.

Q. What is your opinion about the Common? — we who are not

natives of Boston, but who came here years ago, think that is rather a nice place. At any rate the citizens are very tenacious about it when any attempt is made to take anything from it. What do you think of it?

A. I was born right opposite Boston Common. I suppose I ought to have a love for it, and so I do, as far as the Common is concerned. I think the expense of the Common, which I understand is some three hundred or four hundred dollars per acre —

Q. Well, sir, it makes no difference what the expense is, my question is, what do you think of the Common? Do you think it is beautiful or not?

A. Well, sir; nature has done a great deal for Boston Common, but I don't see that anybody else has done very much for it.

Q. (By the CHAIRMAN.) Does Mr. French remember Boston Common as it once was? How many years back do you remember it?

A. Well, sir; that would be stating very nearly my age, and I don't know but I am a little bashful on that point. I am not an old maid, but I am a bachelor.

Q. Do you remember the trees when they were very small there?

A. No, sir; I think those elms must have been pretty good size when I saw them.

Q. (By Alderman CLARK.) Do you think putting down the curb has injured the trees on the Tremont-street side?

A. I cannot say, Mr. Clark, whether that has been an injury to them or not.

Q. You do not think any improvement has been made the last few years on the Common then? You do not think the sowing down of the parade-ground was an improvement?

A. Yes, sir; but that is only restoring it to what nature would have had it in the first place. I think that is an improvement, decidedly.

Q. (By the CHAIRMAN.) Do you know what nature had there in the first place?

A. It may have been a mill-pond in the first place.

Q. (By Alderman CLARK.) Do you think the cutting of the grass every week is any improvement over cutting it twice a year, for the hay in the first place, and the rowen — you understand what that is — in the autumn?

A. I think that is an improvement, Mr. Clark. The cutting by machine is an improvement, I think; I do not see why it should be a very expensive operation.

Q. Suppose you were to mow the grass on your farm once a week, as it is done on the Common, would it add anything to the expense of carrying on your place?

A. Well, sir, I think with a good mowing-machine I can mow an acre an hour very comfortably; with one of these machines it would take a little more time; it ought not to take more than two hours to the acre, I think.

Q. (By Councilman CLARK.) Don't it make a difference about the trees in mowing?

A. Yes, sir; we generally avoid the trees, sir, and go around them.

Q. (By Mr. WILBUR.) Have you ever made any suggestion to the committee or to the superintendent with regard to any of these changes that you would like to see made?

A. I beg your pardon, I did not catch your question.

Q. Have you ever made any suggestion to the committee or superintendent with regard to any of these changes that you would like to see?

A. No, sir; I never passed a word with either of them.

Q. Never had anything to do with the Public Garden in any way?

A. Simply as a pedestrian, I have walked across it. I have no interest in it except as a citizen. I would like to have it replanted.

Q. (By Mr. RUFFIN.) What would be the expense, Mr. French, of the first setting out for the replanting?

A. Well, sir, I could not estimate that; you would have to go into a very careful calculation in regard to the number of beds, quantity of loam, and what trees and shrubs you wanted to put into it.

Q. Couldn't you approximate it?

A. It would require a very careful estimate to decide about that, and I certainly would not give any rough figures on it, because I don't know.

Q. You could not come near it?

A. I might, and I might come a great way from it.

Q. (By Mr. WILBUR.) You think the first outlay would be far greater than the usual expense would be?

A I did not say that; but the first expense would be large, because there is hardly a bed in there that does not need to be changed. I think there might be some; but I say, as a rule, they need to be replanted, and a great many of them should be pitched away and burned up for kindling-wood, and planted with new shrubbery and plants, with some order and system about it.

Q. (By Alderman VILES.) By the drift of your remarks I should judge you thought that with a new superintendent and some changes we would get better results.

A. You might get a great deal worse results. It would depend on who was put in.

Q. (By Mr. BURKE.) From your expression about these plants in the garden and their arrangement I understand you would call it gaudy rather than pretty. Is that what you mean by having so many flowers? I understand you to say it is tiresome to the eye. Would you make it appear that it is rather gaudy than pretty?

A. That remark would apply only to those ribbon-beds on the main walks and side walks; not to the general planting. I say a certain amount is pretty; but to carry it to any great extent is tiresome to the eye.

Q. (By Mr. SMARDON.) I understood Mr. French to say that was the beauty of the garden.

A. It is all the beauty it has, sir.

Q. Now I understand he says there is too much —

A. I said I understood that to be the redeeming feature.

Q. Then I understood you to say you would cut them down.

A. I said I would not have so much of it. You can have too much of something that is good, you know.

STATEMENT OF JOHN H. D. BRYANT.

JOHN H. D. BRYANT. — Mr. Chairman, I came to this hearing not as to a hearing where any one was on trial. I did not understand that any one was on trial, and I do not now understand that that is the purpose of the hearing. I supposed it was an investigation into the management of the Department of Common and Squares, — perhaps for the purpose of commendation rather than reproach. I wish, for my own satisfaction, and also on behalf of some other citizens, to ask for information in regard to the treatment of the trees on the Common. As to the grass, I feel very much pleased with its healthy condition ; but some of the trees do not seem to me to have fared so well. And now I state, of my own knowledge, that certain trees on the Common which have been cut down, the trunks indicate that the trees were perfectly sound when cut. They were cut when I was away, and I cannot speak from personal observation of the branches ; but certainly the stumps indicate that the trees must have been sound when cut. The branches of other trees lopped off very near the trunk, where they are very large, show no indication of decay. It is quite likely that the extremities of some of these branches should have been taken down. I want to inquire for myself, and for a great many other citizens who feel very much interested, by whose order sound trees are removed from the Common. It seems to me that would be a pertinent matter of inquiry. To show the fact that they are so removed, I wish to add to my testimony that of one or two other gentlemen, whom I wish to interrogate on that question. I think there are one or two persons here who know about it. If anybody desires to ask any questions of me before I sit, I am ready now.

The CHAIRMAN. — The committee would like to hear your observations.

Mr. BRYANT. — I have said all that I have observed.

Q. (By the CHAIRMAN.) How many of that sort of trees have been removed?

A. I speak now, sir, of one tree that particularly came within my notice. Summer before last, or, at any rate, within a recent period, several trees near the corner of Park street were removed. I did not see these trees before they were cut, but after they lay prostrate ; and from the best observation I could make, — and I noticed other citizens examined them at the same time, — the trees were sound, and there was no occasion for removing them, so far as their trunks were concerned. Perhaps the top branches were decayed, but that had not gone to such an extent as to hurt the trunks. I speak with no greater knowledge than others who

see trees on the Common, but I believe I can tell whether a trunk is decayed or not; and, so far as my observation goes, they were perfectly sound. There were two or three trees, — gentlemen present may remember the number, I do not, — there were several trees at the corner of Beacon street, which within three years have been removed, that were sound in body, however they may have been in limb. There is one tree, which is nearly in front of Chickering's piano-house, the trunk of which will speak for itself. I do not know about the branches of that tree, but the trunk bears no indication of being unsound. I should think it was two feet through. The branches of quite a number of trees in that vicinity have been cut off, I do not know by whose orders. That is the extent of my observation.

Q. Have you had any experience in planting?

A. I said I had no experience beyond that of any other citizen of Boston. I should like to have you ask Mr. French, who I see is present, about that.

Q. (By Alderman Clark.) Do I understand you the tree opposite Chickering's was cut down, or that a limb was cut off?

A. There is a trunk there, Mr. Clark, about a foot and a half or two feet through at the ground. I should think it was sawed off, or possibly it was cut off and then sawed off, so that anybody could sit there without being wounded.

Statement of Charles E. French.

The Chairman. — Is Mr. French present?

Mr. French. — I only wish to speak, sir, with regard to the tree which Mr. Bryant has already mentioned.

Q. (By the Chairman.) What is your full name?

A. Charles E. French. I was going up the Tremont-street mall on the Common the morning that tree was being cut down. It seemed to be all right. Two months previously it had lost two of its upper branches, and I saw no reason why it should be taken down. When the trunk was taken down, I think there were two other branches still remaining that had some foliage upon them. I asked the workman in charge why they had cut down sound trees. "Well," said he, "the sap is running down." Well, sir, thirty or forty feet from the root the sap had flowed like a humor; and for three days after that, as I went by, the sap was still running. Now, I am not a practical gardener, but my father has done something in that line, and I used to watch him plant trees, and have some little experience in that way. Although he was not a practical gardener, he served the City of Boston twenty-five years, taking care of the Public Garden, and did it with honor; the trees that are there to-day stand as mementos of his labor. There are a number of other trees that any gentleman who will go across the Common will see are mutilated. I do not know who is responsible; Mr. Galvin may be, or it may be that his workmen are. I asked the workman that I referred to what he was going to do

with the wood, and he said, "We sell it if we can get anything for it." There is one tree in particular which looks something like my fingers [holding up his hand with fingers apart].

Q. (By Alderman CLARK.) Where is that?

A. Midway between West and Boylston streets, on Tremont. There is another that looks like that [holding his hand with thumb and one finger extended]. It was a good tree, and was cut several months ago. I don't know, but if I had a man in my employ who used my trees so I should feel as though I would like to shoot him.

Q. (By Mr. WILBUR.) Do I understand you to say that these trees were in perfect health?

A. Some of the branches had been lost, but some of the branches were healthy; there was no reason for their decapitation. There are some other trees that have been taken down that there was no good reason for cutting.

Q. Do you think there was no reason for their being taken down?

A. None, whatever, sir. I take an interest in the Common, and I take notice every day; if there was a dead branch I should know it. I will say farther that the trees that are mutilated are not on the outside near the curb, with one exception, but are on the inner row; so that the curb does not affect them at all, and they do not die from the effect of putting down the curb.

Q. How many trees are in this condition?

A. Well, this last summer one has been cut down, and three or four, I don't know but five, have been mutilated. There is a little tree —

Q. (By Alderman CLARK.) You say they are mutilated. Do you know whether anything but dead branches have been taken off?

A. Yes, sir, I have seen them taken off green. I don't know whether the men were responsible or not. They must have been men who were hired for so much a day; they did not know anything about cutting down trees.

Alderman CLARK. — The cutting down of trees should be ordered by the superintendent. I would state here that the Committee on Common and Squares do not order the trimming of any trees, or the cutting down of any trees. It is presumed that the superintendent is master of his business and understands what trees to trim and how to trim them.

Mr. FRENCH. — I spoke to a member of the committee, and he assured me that the committee knew nothing about it, but it should be stopped, and it was stopped. I only mention it, because this was not for this year, but it has been so for four or five years. It has not been so bad this year. Just before the cutting down of the Paddock elm it was rather chronic.

Q. (By Alderman CLARK.) You was not in favor of cutting down the Paddock elms?

A. No, sir; I was very much opposed to it.

Q. You thought it was a bad thing?

A. Yes, sir.

Q. What do you think of the appearance of the Public Garden?

A. I think it is beautiful; but I think some other gentleman

with greater experience than myself should speak of that. There is too much sameness there. I think a park that comprised a Common and a Public Garden would be pleasanter to the eye than so much of one kind.

Q. That would comprise what?

A. A piece of the Common and Public Garden.

Q. That you hope to have a little farther out of town?

A. No, sir. I would rather remain in town, as long as we have the present city. But I mean such an one as we may have when the new park is laid out.

Q. What do you think of the general appearance of the Common, aside from the mutilation of one or two trees?

A. I think the mutilation of the trees spoils the whole effect.

Q. What do you think of the way it is kept, sir?

A. I think there is too much — there has been none put down for five years.

Q. I mean this year.

A. As far as the grass is concerned, I think it is well kept, and the walks, so far as I know, are well kept. I do not intend to find fault, except so far as the condition of the trees is concerned. I am not a practical gardener, but it seems to me it might be done for less.

Q. (By Mr. WILBUR.) Have you any reason to believe there has been any neglect of duty on the part of the superintendent?

A. I cannot say that, sir; I think there has been neglect on the part of some one.

Q. Do you think there has been neglect?

A. Yes, sir; on the part of somebody. I have been down there where men were at work, and they would take up a tool, hold it, turn around and go to work, and then wait a minute and go to work again. It seemed to me as though they were working to make time, rather than to accomplish anything.

Q. Does it seem more so in this department than in others?

A. I think it does, sir; because in other departments there is some one to oversee them, and I think on the Common there is not.

Q. Is there not generally a foreman over the men?

A. I think in the Paving Department and in the Street Department there is.

Q. Do you think there has been any mismanagement in regard to the care of the Common and squares by the committee?

A. I do not say that, sir; I know nothing about it.

Q. (By Mr. BURKE.) Don't you think that on all public work men generally work less than they would for private parties? Don't you think that men generally expect to have a better time working for the national or city governments than they do when working for private parties or corporations?

A. Possibly, sir; but I think they should not.

Q. Don't you think that is really the case? Take it, for instance, in our Navy Yard, and, in fact, in all the States of the Union; do you think that men working for the government do more than half a day's work compared with what they have to do for private corporations and firms?

A. Well, I suppose they do less work.

Q. Well, as a citizen of Boston, would you expect a man employed by the city to work as hard upon the streets, or on the Common or Public Garden, as he would if he was hired to do the same kind of work for private parties?

A. I should, certainly. If he did his duty it would make no difference at all.

Mr. BURKE. — I know it has been my experience that they have not. I know that in our Navy Yard they do not do more than half a day's work, compared with what they would do for private parties at the same kind of business. You may take it in any kind of business you have a mind to, and I don't think there is a man that does half a day's work; that is, if you measure it by an outside standard. I think it is generally understood by all parties working for the City Government, as well as for the National Government, that they do not propose to work hard. They may, perhaps, be employed pretty diligently, but I feel pretty confident that they will not do as much work as if they were employed by private firms at the same business. I think you will find that in every State of the Union; I certainly expect it. I do not know what others may do. I feel pretty confident that is the case.

Q. (By Mr. WILBUR.) Did you ever hear any complaint of the work being done in other departments?

A. Very little, sir; but I have not followed up other departments as I have this.

Q. Did you ever hear any remarks made, or complaint, that men in the other departments did not do as much work as they should?

A. I do not think I ever heard of any complaint in other departments, because the men have had less opportunities there, as I have said before.

Q. You have heard it in the Department of Common and Squares?

A. Yes, sir, I have; and I have noticed myself. I have noticed it more in the newspapers through articles that other gentlemen have wrote.

Q. Then you have not known it of your own personal knowledge?

A. Oh, yes, sir; I speak from personal knowledge when I say I have seen these workmen who appeared to work in an idle sort of a way, simply to make time.

Q. Well, has it been a fact that your attention has been called more particularly to this one department?

A. Yes, sir, that is so. I have paid more attention to it because I have taken more interest in the Common and Public Garden than in other departments.

Q. You have no reason to suppose that it is not the same in all departments?

A. Yes, sir, I have; because I have not read as much complaint in the newspapers, and generally the newspapers tell us all these things.

Mr. BRYANT. — Mr. Chairman, if you will be so kind, I would

like to have you ask Mr. French if he observed the condition of the trees near Park street, of which I was speaking.

Q. (By the CHAIRMAN.) Did you observe the condition of the trees near Park street, of which Mr. Bryant spoke?

A. Yes, sir; that was in previous years though, and I believe that is a time that you do not admit discussion upon.

Q. (By Alderman CLARK.) Have you ever noticed three trees on the walk near the corner of Boylston and Tremont streets that are completely surrounded by asphalt? Do you know there are three trees there completely surrounded by asphalt?

A. Near the burying-ground?

Q. Yes, sir.

A. Yes, sir.

Q. How happens it, if asphalt is so injurious to trees, that they have never died?

A. I do not know, unless they draw their sustenance from the other side, down below.

Alderman CLARK. — Possibly so. It has always surprised me. This was done before I had anything to do with the Common and squares, and I had nothing to do with it. There are three trees, apparently as healthy as any on the Common, and they are completely surrounded with asphalt.

Mr. FRENCH. — I believe they are on the slope of the hill.

Alderman CLARK. — No, sir; they are directly in the walk, and the asphalt completely surrounds them.

Mr. FRENCH. — If they were on the slope of the hill the water would gravitate towards them.

Aldermen CLARK. — It may be that it does.

Mr. THOMPSON. — Mr. Chairman, as reference has been made to the manner in which labor is performed on the Common, I think it would be well if the superintendent would describe the method by which the men are employed; the means by which he is wrought upon to induce him to employ men; the demands which are made upon him for employment; and I would like to ask whether in his opinion he has not employed a large number of men this year more than were necessary.

Alderman CLARK. — I hope before this investigation is completed —

The CHAIRMAN. — The superintendent has been summoned to attend as a witness, and at the proper time the committee will call him up.

Mr. THOMPSON. — If you will, please excuse me.

The CHAIRMAN. — That question I think was answered by several of the parties. However, we intend to put the superintendent and the Committee on Common and Squares through a thorough examination, and ascertain the facts. You have heard to-night a great many views and statements in relation to the loam and other matters. Of course the committee do not like to check any questions of that kind, but we have taken a better course to ascertain the amount of gravel and the amount of stones and the amount of loam delivered on the Common, by the survey of our City Engineer, who has had instructions to survey and ex-

amine it, and report to this committee. I presume the committee allowed all these questions to go on to-night, so as to give as thorough a hearing as we possibly can on this matter.

Mr. WILBUR. — As it is getting to be quite late, — and for my part I don't wish to stay here all night, — I move we adjourn to some future time.

Mr. SMARDON. — Mr. Chairman, before you adjourn, I hope you will call upon Mr. O'Brien.

The CHAIRMAN. — Is Mr. O'Brien, who appeared at our last meeting, here to-night?

STATEMENT OF JOHN M. GALVIN.

The CHAIRMAN. — Is Mr. John M. Galvin here to-night?

Mr. GALVIN. — Yes, sir.

The CHAIRMAN. — Would the committee like to examine Mr. Galvin to-night, in relation to his statement?

Mr. RUFFIN. — I think we had better put that off until the next meeting.

Mr. BURKE. — I would ask if Mr. O'Brien was summoned.

Mr. RUFFIN. — He was notified, — that is, publicly notified.

Mr. JOHN M. GALVIN. — I wish to say in relation to the statement I saw in the public press, in regard to my management of the position which I hold, that the statements which Mr. O'Brien made in regard to me were entirely false. If the gentleman was here I would like to have him make the statement before my face. That is all I have to say in regard to it.

Q. (By Mr. RUFFIN.) Do you know how many days he worked?

A. I looked over my book, and I found that he worked five days. I went down to the treasurer's office and spoke to Mr. Woodward, the cashier, who was a witness that he paid O'Brien for five days. I believe Mr. O'Brien said he did not sign his name, — that he drew his money without signing. Mr. Woodward showed me the pay-roll on which Mr. O'Brien had drawn five days' pay, and on which Mr. Woodward had witnessed his signature that he had paid him the money, — eight dollars and seventy-five cents, or something of that kind.

Q. Was there any conversation between you and O'Brien about the number of days he had worked when he came to you?

A. No, sir.

Q. How do you know he had worked five days?

A. I know it by the time-book I keep on the Common, down by the deer park, and by the pay-roll at the treasurer's office.

Q. You did not rest upon his statement?

A. No, sir. Mr. O'Brien received five days' pay, for the length of time that he worked, according to the time which I kept.

Q. Do you remember of any conversation which took place when he called to get his money?

A. No, sir; I have no recollection of any whatever. I know I never had any such conversation as he stated.

Q. Do you recollect of any conversation?

A. Well, I know in regard to the man O'Brien, — I recollect it distinctly, — that he was hired on the Public Garden, and that he went there to work. He went to work digging the beds of the garden, in the spring. The superintendent went by and found that he was not digging them properly, and discharged him. He came to me, and I, being the assistant foreman on the side he was on, heard the circumstances, and said I would put him back. I conferred with the superintendent, and tried to have him retain him there, which he did; and he stayed there all the time he was at work.

Q. (By Alderman Viles.) Was that this year, or previously?

A. This year.

Q. Because he made the same complaint to me last year, that he was discharged because he could not spade right among the plants.

A. That was this year.

Q. (By Mr. Ruffin.) Did he say he had worked three days?

A. No, sir; he did not.

Q. (By the Chairman.) Are you in the habit of paying men for five days who work only three?

A. No, sir; I hope not. Being a public servant of the city, I do not know how I could do that.

Q. (By Mr. Clark.) How often do you call the roll?

A. I call the roll three times a day, — at seven o'clock in the morning, at one o'clock in the afternoon, and at six o'clock in the evening, — once oftener than it is called in any other department of the City of Boston.

Q. And if a man works only half a day —

A. I give him half a day.

Q. (By Mr. Wilbur.) Do you keep a time-book of all the men?

A. Yes, sir.

Q. Do the men who work in the south part of the city, or in Roxbury, come in to roll-call?

A. No, sir; they do not. There are very few men, comparatively, working there, except when there is extra work there.

Q. It is only for the men right in this immediate vicinity that the roll is called?

A. Yes, sir.

Q. How is the time of the suburban men kept? Is there a roll-call?

A. I go out there and look after their time, and keep it in that way.

Q. Every day?

A. Yes, sir; at Madison park and Washington park, and all the other small parks in the city.

Q. Have you ever been out to take the time of men working on Orchard park?

A. No, sir. I have never had any men working there.

Q. You know where that park is situated?

A. Yes, sir; in your vicinity, I think.

Q. (By the CHAIRMAN.) Is that the reason why you do not improve that park,— because Mr. Wilbur lives in its neighborhood?

A. No, sir.

Mr. THOMPSON. — If the Chairman will ask Mr. Galvin in reference to the number of men employed in the parks, I would like to ask how many men are employed in the parks away from the Common and Public Garden.

Q. (By the CHAIRMAN.) Will Mr. Galvin answer that question: how many men are employed in the outlying parks?

A. Well, sir, there are quite a number of men employed in the suburban parks in Charlestown, in South Boston, and two or three in Roxbury and other places; enough to keep them in good condition during the year. I really do not know how many men it takes to keep them so. Sometimes it takes more, and sometimes less, according to the seasons, whether they are wet or dry.

Q. (By Mr. THOMPSON.) I would like to know whether some of them are not carried on by contract?

A. I do not refer to those which are carried on by contract. I believe Blackstone and Franklin squares, at the South End, are carried on by contract. I have nothing to do with them, any way.

Q. And the parks in South Boston, are they taken care of by you?

A. They are taken care of by our department.

Q. How many men do you employ there?

A. Sometimes more, and sometimes less.

Q. More than what, and less than what?

A. Sometimes five or ten, and sometimes three.

Q. Somewhere on an average, you would say, of six or seven.

A. Possibly so.

Q. How many are employed in Charlestown?

A. Two men are employed permanently.

Q. How many in West Roxbury?

A. We send men out there whenever the parks need attention.

Q. What other parks are there? Are there any other parks?

The CHAIRMAN. — There is a park in Roxbury — Washington park.

Mr. GALVIN. —Yes, sir; that is the most expensive suburban park we have.

Q. (By Mr. THOMPSON.) How many men do you employ there?

A. Five or six.

Q. Then that leaves you an average number employed on the Common and Public Garden ever since the 1st of January, or the 1st of May, of about ninety-five men?

A. Well, it might be, sir, but sometimes there is extra work to do, as in the case of the monument; there were quite a number of men around there.

Q. The monument work is done by contract, is it not?

A. I presume so, sir. I have no doubt about it.

Q. You keep the time-roll?

A. Yes, sir.

Q. How many men are employed on the Common and Public Garden?

A. Sometimes more and sometimes less.

Q. More than what, and less than what?

Alderman Clark. — Suppose you refer him to the pay-roll.

Mr. Galvin. — Yes, sir. I cannot carry the numbers in my mind, but no more than the legitimate number that are required to keep the department in good order and condition.

Mr. Thompson. — I want to get at the number.

Mr. Galvin. — If the gentleman refers to the pay-rolls in the treasurer's office he will ascertain.

Mr. Thompson. — The pay-rolls are not here, and this is evidence before this committee; I suppose you can give it.

Mr. Galvin. — I should think, on an average, there are eighty or ninety men in the department during the summer.

Q. (By Mr. Thompson.) How long a time, on the average, were different men employed? How long has been the term of service of any one man?

A. Well, I have been there, sir, only a couple of years.

Q. The present year I refer to; that is the scope of this investigation.

A. Will you ask your question again?

Q. During the present year, of the average of eighty or ninety men employed, what has been the average term of service of the men employed on the Common and Public Garden?

A. Well, during the time that work is done there have been eighty or ninety. Last winter there was a great deal of extra work caused by snow being carted upon the Common.

Q. I refer simply to since the first of May the present year.

A. I should think on an average there were eighty or ninety men.

Q. What I am trying to get at is, if a man was once employed, how long did he remain before he was taken off and another put on in his place?

A. Sometimes he might stay three or four weeks. We generally try to do as much as we can for the laboring men. We give some of them four weeks, and then we put on others, and give them four weeks.

Q. You try to make the work go as far as you can?

A. Yes, sir.

Q. Without any regard to whether they have any knowledge on flower-gardening?

A. In my capacity of looking after the men, I never saw any men who were not capable of doing the work I set them to do.

Q. You never saw any?

A. No, sir.

Q. Not even Mr. O'Brien?

A. No, sir.

Q. You consider him capable?

A. So far as my knowledge goes.

Q. Didn't you discharge him?

A. I received orders to discharge a certain number of men, and he was among the number.

Q. Then you say you kept them four weeks on the average. Is that the longest time on the average?

A. Well, I kept some four weeks, and some four months.

Q. How many for four months?

A. Well, I do not know; I could not tell exactly.

Q. I suppose the pay-roll will tell that?

A. Yes, sir, I think you could get all the evidence you want there.

Alderman CLARK. — Mr. Chairman, I am very glad that the gentleman is so anxious to obtain information, and I have no doubt the committee is perfectly competent to and desirous of getting all the information they can.

Q. (By Alderman CLARK.) Now, Mr. Galvin, has it been the practice of the gentlemen of the Common Council, from all sections of the city, to urge you to put men at work upon the Common and Public Garden?

A. No, sir; not to urge me particularly.

Q. Do you know whether they urge it from all sections of the city?

A. Yes, sir, they do.

Q. (By Mr. THOMPSON.) I would like to ask further if there is any special pressure from Common Councilmen?

A. Well, sir, there is the pressure that the constituents of the Common Councilmen bring upon them.

Mr. SMARDON. — I would like to inquire if Mr. Thompson has not put on one or more men there?

Mr. THOMPSON. — If Mr. Smardon asks me that question, I would say that he did not. He went to Mr. Galvin, and asked him if he had any vacancies, and for the first time discovered what the system of employing men there was, and was very glad his attention was called to it. The man went on, and was there, I think, four months.

Q. (By Mr. WILBUR.) Do you think there has been any particular pressure for men to be put to work from the Common Council more than from the Board of Aldermen?

A. Not particularly, sir.

Q. (By Mr. CLARK.) Do you have the putting of men to work?

A. No, sir, I do not.

Mr. CLARK. — Then I don't see the use of these questions.

Q. (By Alderman CLARK.) Do you know whether Mr. Thompson has had a man there?

A. I do not.

Mr. THOMPSON. — I stated that my impression is there was a man put on.

Mr. GALVIN. — I have no knowledge of it.

Mr. THOMPSON. — I am quite sure he was put on.

Alderman CLARK. — You did not learn the system until you had this man put on, and you only asked for one this year?

Mr. THOMPSON. — That is all. I wish to state particularly, — and I think Mr. Galvin will bear me out in it, — that I stated particularly that I did not ask it as a member of the Common Council.

Superintendent GALVIN. — And I told you you were a member of the Council, and that was the reason the man went on.

Q. (By Mr. Brown.) Do you keep a book of the names of the laborers, and who got them put on by the superintendent?

A. No, sir, I do not.

Q. The book does not tell by whose influence they were employed?

A. No, sir.

Q. (By Alderman Clark.) Mr. Galvin, while you are on this matter of employment — there are seventy-five members of the Common Council and twelve members of the Board of Aldermen, making eighty-seven in all; so that, if each member has had one, Mr. Thompson had had a pretty fair share of the work that has been given the employés this year, has he not? They have not averaged through the season more than eighty-five, have they?

A. No, sir, I should think not.

Q. I only want to know if this thing has been equally distributed.

A. Well, in the arrangement I have made I have not borne in mind whether a certain Councilman has had any or not.

Alderman Clark. — I understand that; but I wanted to know if they were equally proportioned.

Mr. Thompson. — I wished to understand whether he meant to say that there have been eighty-five men employed this season, or whether he means that eighty-five different men have been employed each day.

Alderman Clark. — We propose that this committee shall understand just exactly how many men have been employed, and how much they have been paid a day. I notice no one has introduced an order into the Council to reduce the pay of laborers in the city departments this year.

Mr. Thompson. — I don't know that there has been.

Alderman Clark. — I have not seen it.

Mr. Thompson. — I think I may correct the Alderman. My impression is that there has been an order introduced to fix the pay of laborers at a lower sum than has been paid on the Common and squares. The order was brought in before the beginning of this financial year, — if you are referring to the current year.

Alderman Clark. — I refer to the current year, — since the first of May.

Mr. Thompson. — Before that time, when we were making appropriations there was an order introduced to fix the pay at a lower sum; but the appropriation was based upon the higher rate, I believe.

Mr. Danforth. — I am glad to learn how the department is managed, but I would like to know where my man is.

Alderman Clark. — You have not been as consistent as Mr. Thompson. Did you ever ask for one?

Mr. Danforth. — No, never.

Alderman Clark. — That explains it.

Mr. Smardon. — I would state that a gentleman came to me and used Mr. Danforth's name, and I attempted to get him put on, but did not succeed.

Mr. Danforth. — I never sent him.

Mr. WILBUR. — I move that this hearing now adjourn.

Alderman CLARK. — I wish to know whether this hearing is to be adjourned as a public hearing, or to be closed as a public hearing.

The CHAIRMAN. — That will remain for the committee to decide.

Alderman CLARK. — I think it should be announced at the present time.

Mr. BRYANT. — I hope the committee will continue it as a public hearing, because I think the public are getting interesting information as to the basis on which men are employed. I think it is new to most of us excepting the members of the City Government.

The CHAIRMAN. — Mr. Bryant, I presume, should understand, and perhaps does, that this year has been one of unusual pressure; if he had been a member of the Board of Aldermen or a member of the Common Council he would have found that there has been an unusual pressure for employment this year. An Alderman at the last meeting of the Board told the story very truly and correctly when he said that he had to keep an extra girl to answer the door-bell, because it was rung from morning till night by these poor people who are continually pressing for employment. I know I feel it, and I think almost every member of the Common Council and of the Board of Aldermen has had the same experience, and you can tell what you would do under the circumstances. These men have been given employment for a few weeks at a time, as I understand it. Mr. Galvin will bear me out in saying that I have not made any pressure for appointments in that department, because I felt that he was overrun with applications of that kind, and have not pressed any; but I can see how other members of the Council and Board of Aldermen could not help pressing applications for employment when they were so pressed themselves by poor people who needed it.

The committee will now decide whether our next hearing shall be a public one; or whether they think they have given sufficient opportunity to citizens to state their grievances.

Mr. BROWN. — Would it not be well to ask, Mr. Chairman, if there are any people who have got any further evidence or anything further to say? If there are, we shall have to hear them.

The CHAIRMAN. — Are there any gentlemen present who have not had an opportunity of stating anything they have to say in relation to the Common and squares?

Mr. THOMPSON. — A gentleman has asked me to ask whether Mr. O'Brien, who testified at the last meeting, had been summoned to appear here.

The CHAIRMAN. — I could not answer that fact.

Mr. RUFFIN. — We have no power to summon.

Mr. THOMPSON. — Whether he has been requested or notified?

Mr. RUFFIN. — Yes, sir; he was notified.

Mr. THOMPSON. — Has he been notified since the last meeting?

Mr. RUFFIN. — I do not know about that.

Mr. CLARK. — Mr. O'Brien was not notified. He gave his testimony at the last hearing, and Mr. J. M. Galvin was notified.

The CHAIRMAN. — The messenger tells me that Mr. O'Brien has been outside, but did not come in.

Mr. THOMPSON. — I believe the request was that he should be notified.

Mr. WILBUR. — I move that we adjourn for a farther hearing.

The CHAIRMAN. — My impression is that Mr. O'Brien was formally notified to make his appearance at the next meeting. If there is any misunderstanding the committee will notify him to appear at the next meeting. When will the committee meet?

Mr. BURKE. — Since we have spent two evenings in this matter, I have heard it said by some of the members of the committee that the general impression had gone abroad that this committee was for the purpose of whitewashing the Committee on Common and Squares, and also the superintendent. While I believe that thus far the citizens have had a good opportunity to ask any questions that they might see fit, through any member of the committee, or to make any statement that they pleased, there have been some gentlemen here this evening who did not appear at our last meeting, and possibly there may be some other citizens, who are not here this evening, who may want an opportunity to put in some claim or have something to say at our next meeting. I suppose this committee can occupy the whole year in investigating this case; but perhaps after one more public hearing the committee, having examined the superintendent and the committee, may receive all the information that they desire. I therefore move that the next meeting of this committee be a public meeting.

The motion prevailed, and the committee adjourned until 7 o'clock, P.M., Wednesday, Oct. 31st.

Third Session.

WEDNESDAY, October 31, 1877.

The committee met in the large Committee Room at 7 o'clock, P.M.

Present, — all the members.

STATEMENT OF J. D. W. FRENCH. — *Resumed.*

Mr. FRENCH. — I took some of your time at the last hearing, and, as there seems to be no one else who desires to say anything, I have a few more words to say at this time. Have I a right to ask questions with regard to the management of the Garden? Suppose I want to get at information in regard to anything in the Common, the Public Garden, and the public grounds, have I a right to ask questions here so as to get at the information through you?

The CHAIRMAN. — What is the nature of the questions?

A. In the nature of seeking information.

Q. I should be able to answer that better if I knew what the questions were.

A. Such a question as this: I should like to know the number of bedding plants supplied to the city last year.

The CHAIRMAN. — All that information is in the auditor's department, and any citizen has a right to go in there and ask for bills of that description, if he will specify the bills particularly that he wants. I can answer that question, in part, in this way: I was chairman of the committee, in the early part of the year, to nominate a Superintendent of Common and Public Grounds; and a member of the committee, and a member of the Council also, went to the auditor's office and obtained the bills paid by that department. He not only went to the auditor's office and obtained those bills, but he went to other florists in the city to ascertain if the charges were correct; that is, how much they would charge for plants delivered of the description specified in the bill. The information was so satisfactory to him, — well, he was so impressed with the fact that the charges to the City of Boston were quite as small, compared to the charges for which other florists would furnish the same material. That is all I know about it. But in the auditor's office all those things are on file, and are open to the inspection of every citizen.

Mr. RUFFIN. — It seems to me it would be sufficient to answer the gentleman by saying that the information which he seeks is not in the possession of the committee.

Mr. FRENCH. — Can I ask how the plants were obtained, — by contract, or how they were purchased, — the bedding plants?

The CHAIRMAN. — That information is not in the possession of the committee yet. They will, of course, examine the Committee on Common and Squares, and also the superintendent, and I suppose all those facts will be drawn out in the examination.

Mr. French. — I know the question was asked me at the last meeting, whether the plants should be bought by contract; and I said they should. But I want to say here that the specifications for the contract should be given out in the fall, and not in the spring. That gives a person a chance for growing the plants for the purpose. As I said, I cannot see how any person can grow such plants without an intimation that he has to furnish them. He must have the winter to grow the plants in. Now, if I had known exactly the number of thousand plants which had been furnished there, — which I did not know, — I could have given the committee some information what those plants ought to cost per thousand, such bedding plants as they have; but, as I don't know the number of plants, it would be quite useless to state the price per thousand. But there is one item of information in regard to plants, which Alderman Clark asked me at the last meeting, which I was sorry I could not answer at the time as accurately as I wished, — that is, in regard to the importation of rhododendrons. Alderman Clark asked me for what price they could be imported, and I could not give the price; but, as it happens, I imported a box of flowers, and I don't know but it came over in the same steamer with those of the city, — it was the "Palestine," I think. I have looked over my figures, and I can tell exactly what those plants cost. As it happens, they came from the same nursery, — Anthony Waterer, — so that the price shouldn't vary for about the same plants. Now, those plants cost me, laid down here in Boston, seventy-seven cents apiece; we will call it eighty cents. According to your figures there were five hundred rhododendron plants furnished to the City of Boston. Now, at eighty cents apiece, that would be four hundred dollars. That leaves a balance of five hundred and ninety-one dollars, which it seems to me it would be worth while to investigate to see what became of it. The plants were bought by a tree-broker, Frederick T. Kelsey, and perhaps he may know something about it. As I say, the plants cost me eighty cents apiece, and they cost the city one dollar and ninety cents apiece.

Now, sir, to suppose that those plants on the Common and Public Garden were the same sort of plants that I had myself, an expert in such plants, a gentleman who imports them himself, and knows all about them, and is acquainted with Anthony Waterer's Nursery, states to me that those plants cost ten pounds a hundred in London, which is the same price as my own cost. It is about eighty cents apiece. The same plants cost the city a dollar and ninety cents apiece. The balance shows a profit to somebody of five hundred and ninety-one dollars.

Alderman Clark. — How do you know that that was not a profit to the city? You insinuate that somebody else made a profit out of it beside the city.

A. I say Mr. Kelsey can tell you something about it.

Q. Are you acquainted with Mr. Kelsey personally?

A. No, sir, I don't know him, and never saw him.

Q. Do you know he has at home in New York one of the largest nurseries in the State of New York?

A. No, sir, I don't know it; I do not.

Q. Do you know who employs him here in Boston?

A. I had rather say I could tell you who does not employ him.

Q. Do you know what his employment is?

A. As I say, those statements are substantiated by a man who is an expert in such things, and he says those plants ought to cost only ten pounds a hundred. That is the same as mine cost.

The CHAIRMAN. — Can you give that expert's name?

A. Yes, sir; he is professor of the Buzzey Institution, curator of the Harvard Arboretum, and has charge of the grounds in Cambridge, and also the grounds of Harvard College. This was simply in answer to Alderman Clark's question at the last meeting.

Mr. SMARDON. — I should like to ask the gentleman a question.

A. Certainly.

Q. I should like to ask Mr. French whether he knows those bills were for rhododendrons and nothing else? Wasn't there some other plants included in those bills?

A. No, sir; I think there were five hundred rhododendrons, and there were a few azalias.

Q. How many azalias were furnished in that bill?

A. There were five hundred plants altogether, I understand, and a small proportion were azalias.

Q. Do you know that to be a fact, — that there were five hundred?

A. Yes, sir, I know it to be a fact, and I know there were five hundred plants there.

Q. Do you know it to be a fact?

A. It is fully substantiated to my mind that there were five hundred plants imported. I should be very glad to present to the committee the bills of my own importation.

Q. You say those plants purchased for the city cost one dollar and ninety-eight cents, and that there is a discrepancy of five hundred dollars?

A. I said there were five hundred dollars which didn't appear. I don't know anything about it. But according to the cost of the plants, and according to my importation, that would be a matter of five hundred dollars which didn't appear.

Now, sir, in regard to the general management of the grounds, I wish to answer some questions asked me at the last meeting, to which I was unable to reply at the time as accurately as I should wish. In regard to the arrangement of the Garden — what I would do with the plants, or how I should arrange them — now, I hold in my hand a letter from Prof. Sargent of the Buzzey Institution, and I wished him to be present, but he was unable to do so. He wrote me a letter [reading]: —

The general points against the Public Garden are that it has too many walks leading nowhere; not enough breadth of lawn, and too many common tender bedding plants. They are entirely out of place in a Public Garden that should be laid out simply with lawns, grass, trees, and shrubs, hardy flowers, which, if perfectly arranged, would give a succession of bloom from April till November. In my own opinion the garden should be laid out in an entirely different plan, and if planted as I suggest, six men in summer and

one in winter would keep it in perfect order, and two hundred dollars would buy all the plants required.

One of the committee asked me what I thought it would cost to make a complete change in the Public Garden, and I didn't feel that I was able to state the cost; but Mr. Sargent says that ten thousand dollars would make all the change that is necessary in the Garden.

Alderman Clark. — Mr. French, who is Professor Sargent?

A. He is the Professor at the Buzzey Institute, and has charge of the Harvard Arboretum.

Q. What has been his experience in laying out a garden? Will you please tell the committee? We want to know who is giving this advice, and how much dependence can be placed upon it.

A. He has had charge of the laying out of the Harvard Arboretum.

Q. What has been done at the Arboretum?

A. It has already cost a hundred thousand dollars.

Q. Will you please tell this committee what new paths have been laid out, and what is the condition of the Harvard Arboretum at the Buzzey Farm?

A. I haven't visited it lately.

Q. It is something that this committee are perfectly familiar with. You call him Professor Sargent; I suppose he attends to it the same as Professor Motley attends to his farm?

A. He is Professor of Arboriculture, and has charge of the grounds at Harvard College and in Cambridge.

Q. How extensive are the grounds of Harvard College?

A. He has charge of the botanical gardens and has several acres in plants; and his father also owns an estate in Brookline.

Q. We all know about that; but we want to know at what college Professor Sargent graduated, and what experience he has had in laying out grounds. High-sounding names don't amount to much with the committee.

A. That is very true; and I don't know that there is an arboricultural or horticultural college in this country.

Q. He has had no experience in taking care of grounds except these places in Cambridge and the Buzzey Farm, and this place in Brookline?

A. No, sir; he has taken care of the Buzzey Farm.

Q. How much money does he spend in obtaining trees?

A. It takes care of itself.

Q. It is going to be an arboretum one of these years?

A. Yes, sir; it is going to be a garden that the City of Boston would be glad to have one of these years.

Q. Now, what variety of rhododendrons did you import? What variety cost you eighty cents?

A. The Rozseam Elegans, the Album Elegans, the Purpurium Elegans, the Purpurium Grand de Florum, the Everestianum, and the "H. W. Sargent."

Q. (By the Chairman.) Were they all one price?

A. He sells them at so much a hundred.

Alderman CLARK. — How large were they?

A. From two to three feet high, I should think.

Q. Now, if you had known but little about rhododendrons, and had never had any experience, and if a man like Mr. Hunnewell, or Prof. Sargent, or his father, had recommended this same Mr. Kelsey to you as a good man from whom to purchase rhododendrons, would you have had any confidence in such a man, if such men had recommended him to you?

A. Yes, sir; I think I should. But I don't understand that Mr. Sargent knew Mr. Kelsey, for, from what he writes in the letter to me, he does not speak of him in a very complimentary manner, but as a very offensive sort of a man.

Q. (By the CHAIRMAN.) Do you mean to say that the grounds around the Buzzey Farm will compare favorably with the Public Garden? This committee have visited those grounds during the year, and they know their appearance exactly.

A. I didn't intend to compare them. I don't think they can be compared. I don't think they are meant to be compared. You might compare Mr. Sargent's own grounds with the Public Garden.

Q. But this gentleman's taste is displayed in the position on the Buzzey Farm and the grounds immediately adjoining the college?

A. The idea there is to have an arboretum.

Q. But the grounds are laid out around the college?

A. Yes, sir.

Q. I suppose that is a specimen of Mr. Sargent's taste?

A. I presume he did it.

Alderman CLARK. — There has been some attempt to lay out the grounds around this arboretum?

A. I haven't visited it this summer. I know there are walks laid out, and a garden, etc.

I was asked at the last meeting by some one, in regard to whether I thought it would do better with a new superintendent; and I said, in reply, that it might do a great deal worse; and I say so now. At the same time, I think it would be an experiment worth trying. I received a card from a gentleman, which I would like to read. It is from Mr. Peter C. Brooks, of Medford, a gentleman of taste, who has a house in sight of the Public Garden, and lives in it during the winter and late in the spring; and he writes, — it is just the opinion of a citizen, which I should like to quote to show that I do not stand alone in what I have said in regard to the Garden, — knowing my views in regard to the Garden, he says: —

> My views agree with yours. The Park Commissioners, of course, should have control. I can testify to the outrageous waste of time on the part of the laborers in the Public Garden and Common during the part of the year that I am in town.

That is just the opinion of one citizen in regard to the matter of the Common. I want to say a word about the matter of the Park Commission, as in the order which you have read it asks for

some remedy for this sort of thing. As it stands now, a great deal of the responsibility must necessarily fall upon the superintendent. I suppose that in all the details the Committee on Common cannot be expected to attend to them, but that the superintendent is responsible in those respects. They give the general orders and direction; but at the same time the chief responsibility must rest upon the superintendent. This is the fault of the manner of choosing the City Government. The members of the different committees are constantly changing. Some members of the Committee on Common remain year after year, but all the committees change more or less. Now, any person, to have an accurate knowledge of how the Common and the Public Garden should be carried on, should have a knowledge of arboriculture, and trees and plants, and he must have got his education in either one of two ways: either he must be an amateur and have had charge of those things himself, or he must have had a professional education and have been brought up to it. Now, it is nothing to the discredit of the Committee on Common to say that not many of them have, perhaps, the ability, time, and opportunity to follow out those different lines. But if the whole matter was put into the hands of the Park Commission, — as you have put the Fire, the Street, and Health Departments, — if it were put into the hands of such men, in a few years you would see a very great change, and more efficiency and greater results than we have now. That I believe is the true remedy. I was asked that question in regard to the parks in cities that I have visited abroad, and I believe that the parks in London are placed in the hands of the Commissioners of Woods and Forests, as they are called. That is the true remedy, gentlemen; if you desire to have an entire and radical change in the matter, it seems to me that it should be done in that way.

Mr. Wilbur. — You spoke about what the rhododendrons cost the city. Did you have the information accurately what they cost?

A. It was printed in the report. It states the amount.

Q. Does that give the cost of the plants, the number of plants, and the cost of each plant?

A. No, sir; it states that so much was paid to Mr. Kelsey for rhododendrons. I don't know exactly how it was worded.

The Chairman. — If any other gentleman has anything to say about the Common and squares, the committee would be very glad to hear him.

Statement of Terence C. Smith.

Mr. Smith. — This question has been a very laughable one, in my opinion. Indeed, I cannot help laughing at it myself.

The Chairman. — You appeared before us at the first meeting?

A. Yes, sir; decidedly. Now, gentlemen, so far as I know, — I have been a tax-payer for at least twenty years, and a heavy one a part of the time, — during my experience as a citizen of Boston for twenty-nine years, and over, I have never seen anything of the sort that has transpired under the skill of our present City

Forester. There is a great deal of grumbling about Chester square, and that I am particular to dwell upon, for I was interested in two houses there, and in the building of a school-house. I would say that those lands were bid in from the city at that time, if I remember aright, for fifty-two or sixty-two and a half cents; I cannot tell exactly which; yes, I am sure they were bought in from the city for sixty-two and a half cents a foot. There are, to-day, lands in South Boston, Charlestown, and in other parts of Boston, that have depreciated tenfold, ten times over the price that they were in those days. I am satisfied to assert it, for this reason, that I bought at that time, on Fourth street, in South Boston, two houses, and they depreciated in valuation more than any part of Chester park.

I will show you that if there is any depreciation in property on Chester park it is not on account of Mr. Galvin. It is on account of the dirt, and filth, and mire, before that part of the city was bought; in fact, every back yard was filled with filth. I don't question for a moment the statements of some of the respectable parties living on it; but I am satisfied that all the insect powder in the world will not banish the cockroaches and insects from the street. There is a great deal of gas from the canal, and it will annoy you, and —

The CHAIRMAN. — Will you please confine yourself more particularly to the subject of the Common and squares?

Mr. SMITH. — Directly. I have travelled up to Chester square to-day and seen the houses on Tremont street to Harrison avenue, and I have found that there is no light let in over the halls and entries, and I have found in the autumn of the year that the trees and shrubbery were in that miserable condition, knowing, as I did, that the reason was that the earth under them was nothing but ashes and filth. That is not Mr. Galvin's fault.

I have travelled through all the public grounds of Boston, and admired them; and I have seen the admirable condition of the public squares, — and especially is that so in South Boston. Down in Foundry street, and Silver street, and Gold street, why, the people live there in peace and take care of the trees. The people don't want the houses ornamented by trees at the expense of the City of Boston, and don't want the city to take care of them. This grumbling over Mr. Galvin comes from a filthy source; I am satisfied of it.

STATEMENT OF JOSEPH TAYLOR.

Mr. TAYLOR. — As I have a nursery, and import a great many rhododendrons, I would like to ask Mr. French what kind those were that he could sell for eighty cents each, — if they had flower-buds on them?

Mr. FRENCH. — I am not in the business and cannot —

Mr. TAYLOR. — Did they have flower-buds on them?

Mr. FRENCH. — Yes, sir.

Mr. TAYLOR. — Did you pay duty on them?

Mr. FRENCH. — Yes, sir, and it was outrageous; twenty per cent.

Mr. TAYLOR. — And you say five or six buds were on each plant?

Mr. FRENCH. — I didn't calculate them. Some might have three or four, and some five or six.

Mr. TAYLOR. — I should doubt your word.

Mr. FRENCH. — I don't know but you would; most of the plants had buds on them, and some might have had five or six.

Mr. TAYLOR. — They were not such plants as I could sell to my customers.

The CHAIRMAN. — You say you have been in the habit of importing rhododendrons?

A. Yes, sir.

Q. What do they cost you to import them?

A. They cost me hard on to a dollar each, and I take the risk at that. Such plants as I saw on the Common cost about one dollar and fifty cents. I saw some of those plants on the Common, and I thought they were good plants. I merely asked Mr. French this question, because the statement made might give the public a wrong idea of the nursery trade. If they can get such plants from Mr. Waterer, he uses Mr. Sargent and Mr. French better than he does men in the trade.

Q. You think you buy your plants as low as other men can buy them?

A. Yes, sir. I mean that if he gets plants at the price he states, he gets them at less than Mr. Waterer sells to me.

Mr. FRENCH. — I should be glad to give my bills to the committee and let them examine them for themselves.

Mr. TAYLOR. — The reason that I got up was that I thought Mr. French's statements might give the public a misrepresentation of the trade in Boston. I am speaking in the interest of my business.

Mr. RUFFIN. — Where do you keep?

A. In Wellesley.

Q. Do you keep a place in Boston?

A. No, sir; I sell for the trade.

The CHAIRMAN. — Do you sell rhododendrons?

A. Yes, sir; and I import some of them. Furthermore, I saw some of the plants, and I have paid more for plants of that kind than Mr. French states.

Mr. WILBUR. — You say they cost you hard on to a dollar; what do you mean by that?

A. They cost nearly a dollar, and I have to take risk at that.

Ald. VILES. — What is the per cent. of losses?

A. It isn't a great deal with rhododendrons, unless they happen to get sweated; and then they are no use if the leaves come off. I don't think that amateurs and people outside of the trade have to pay duty, and that is the reason that they get them for less.

Q. How do they get them?

A. I don't believe that amateurs have to pay duty.

J. D. W. FRENCH. — *Resumed.*

Mr. FRENCH. — I am an amateur, and I paid duty. I am sorry to say anything to injure the trade in Boston; but I assure you, gentlemen, that you can buy them for the prices I have named.

The CHAIRMAN. — I would ask Mr. French if the plants he refers to are those mentioned in the report of Committee on Common and Squares, in the item under April 18 [reading]: —

"April 18. Fred. W. Kelsey, plants and trees.....$991 00."

Q. Is that the item?

Mr. FRENCH. — Yes, sir.

Q. It does not specify the names of the plants, or the quantity. Has Mr. French seen any bill or memorandum that would give him any more information than is contained in this one item?

A. I understood that those plants were furnished by Mr. Kelsey; I haven't seen him.

The CHAIRMAN. — The committee intend to have all these bills before them. But this one item to which you refer is not very definite.

Mr. FRENCH. — That is not all the information I had. This is a mere item in regard to the amount.

STATEMENT OF F. L. HARRIS.

Mr. HARRIS. — I scarcely know what to say, there has been so much already said about this affair. But in reference to the general working of the Garden and the way it has looked the past summer, I think myself it has looked admirably, and much better than usual. And as regards the price of plants, I think the City Forester has purchased them at a very low rate; because, if ever I have to buy, which I have to do at Mr. Hunnewell's place, we pay a much larger price for each individual plant than the City Forester is in the habit of doing.

The CHAIRMAN. — You are connected with Mr. Hunnewell?

A. I am his gardener. For instance, I am told that they buy coleus here at the Public Garden at six dollars a hundred; I have to pay eight to ten dollars. When you want plants for ribbons, you want all the same size, or else the ribbon will not be worth looking at. The ribbons generally, I thought, looked well, and I should suppose there were probably sixteen thousand to twenty thousand plants bedded out there — the City Forester can probably tell how many; I should judge there were from fifteen thousand to twenty thousand. Those plants, at ten dollars a hundred, would amount to a very large sum. But the style of bedding is a little different from what we are in the habit of doing. We have one little bed of twenty-four by twelve, and we put five hundred dollars worth of stuff into it. We put much more into the same space than they do into the Public Garden. I suppose that people coming out to see our place see the difference between our place and

the Public Garden, and the difference in our style of laying out a garden. You cannot have it under the present *régime*. You must have a house adapted for growing plants. We have houses and grounds adapted for the purpose, and have had them for the last few years, and you must have the same. That is the cause of the hue and cry that the Public Garden is not worth looking at. You must have stuff to make it effective. My idea is, you cannot make it very effective under the present way in which it is laid out. I am not speaking at all disrespectfully of our worthy City Forester, because I have known him a great many years, and because I am satisfied he has done his utmost to make the place attractive, and one that the citizens of Boston may be proud of; and I think they are as a general class proud of the Public Garden. But, as I said before, the Public Garden wants a new face upon it. If, as Mr. French says, it can be taken care of by six men, it must be remodelled entirely. It must be laid out with three quarters in grass for those men to handle. You take any ordinary vegetable ground, and it takes one man to manage it.

The Chairman. — Mr. French quoted Prof. Sargent.

Mr. Harris. — I should be sorry to conflict with Mr. Sargent, as Mr. Hunnewell and Mr. Sargent are very great friends, and I should be sorry to say anything in conflict with his assertions. But Mr. Sargent must know that six men cannot handle that garden; but if three-quarters were devoted to grass alone, and the remainder to trees and beds, then probably six men could do it.

Mr. French. — That is what Prof. Sargent said; that is what I said.

Mr. Harris. — Under the ordinary cultivation of vegetables in England we should allow one man to an acre. Under the ordinary style of taking care of the Garden there is a great deal of labor in taking care of the flowers.

There is another remark, made by Mr. Bowditch the other day: he stated that twelve hundred dollars would build a greenhouse large enough to raise all the flowers used by the City of Boston. Now I look upon it that about a five-thousand-dollar greenhouse would be sufficient to raise —

Mr. Bowditch. — I believe the gentleman quotes me wrong, sir. I think I said the house, with the heating, would cost twenty-five hundred or three thousand dollars.

Mr. Harris. — I read it twelve hundred dollars, and I think you will find it in the "Globe." Now, he cannot put up a house and heat it for twelve hundred dollars; and the idea of growing the number of plants such as are usually bedded out! It cannot be done.

Now, the plants to be bedded out want to be grown; and some of them want to be grown ten years, so that they will have some effect on a place. It is specially so with tropical plants; they require rich soil and a vast amount of it. Take a standard lantannæ; we have them ten years old, and six and seven feet through, and covered with bloom till the frost comes. Where are you going to stow them away in a twelve-hundred-dollar house, under such circumstances? What the City of Boston wants is a

large greenhouse, with such facilities that the City Forester has the whole thing under his control, and can run the plants into the Public Garden. Then I think the Public Garden can be run cheaper, but it cannot be done without any expense at first.

Alderman VILES. — Have you been on the Public Garden generally?

A. Yes, sir, occasionally.

Q. Do the men do as much work as they do for you?

A. You know you have got to watch men. I know when I handle twenty-five to forty men every spring I have got to watch them. I know that when a man has a large extent of territory to go over it is impossible to watch them all the time.

The CHAIRMAN. — Can you give the committee any idea of the cost of conducting such a place as Mr. Hunnewell's, — the cost of plants?

A. Yes, sir. I have the management of the entire thing, except building the houses. I should judge it costs Mr. Hunnewell thirty thousand dollars a year to run it.

Q. To run his flower-garden?

A. Yes, sir.

Q. How extensive is it, compared with the Public Garden?

A. We have about forty acres improved immediately around the house; but we have a large collection of plants that are very expensive. For instance, Mr. Hunnewell thinks nothing of paying two guineas for a new rhododendron, and many of such flowers as he imported last season.

Q. What do you think of rhododendrons at eighty cents apiece?

A. A miscellaneous lot can be bought for that price; but if you are to have choice-named varieties, with scarlet blossoms, you have got to pay high as from two-and-sixpence to five-and-sixpence a plant for them. I have no means of knowing the names of those rhododendrons that the City of Boston got last spring; but you can get them all the way up from ten to fifty pounds a hundred.

Q. There is a great difference in the price of rhododendrons?

A. Of course there is. That "H. W. Sargent," that Mr. French spoke of, — I recollect when Mr. Hunnewell imported it for two guineas. When it became more common you could buy it for three-and-fivepence a plant.

Mr. FRENCH. — Those plants he names only cost me eighty cents apiece. My plants were all named varieties, and cost me that price.

Mr. HARRIS. — I did not say they were not all named. I said you could buy stuff at ten pounds a hundred; but if you want choice varieties you have got to pay from two-and-sixpence up to five-and-sixpence apiece. In ordering a hundred plants they may put in a few choice plants with them; but if you go to work and scan his catalogue you will find you cannot buy them for less than from two-and-sixpence to five-and-sixpence apiece.

Alderman CLARK. — Are you acquainted with Mr. Kelsey, who furnished these plants to the city?

A. Yes, sir. I have known him a considerable number of years.

Q. Do you consider him a reliable man?

A. Yes, sir. He has furnished us with trees.

Q. You consider him a reliable man?

A. Yes, sir.

Q. Mr. Hunnewell so considers him?

A. Yes, sir. Mr. Hunnewell ordered plants of him himself. I have referred him to Mr. Hunnewell, and he has been at his office, and ordered trees from him.

Q. What should you think it worth to guarantee five hundred or one thousand rhododendrons to live after setting out, — what percentage would die?

A. That is a question I could hardly solve.

Q. Is it worth anything?

A. It depends a great deal.

Q. Would you give any more for five hundred rhododendrons that were guaranteed to live after they were all set out than you would without it?

A. There is just this about it: Mr. Anthony Waterer, who shipped those to this city, and who is one of the largest growers in the world, has had a voluminous correspondence with Mr. Hunnewell, and he is posted on all varieties that will stand our climate. Mr. French has received some plants that I know will not stand our climate; and Mr. French may have received some, from the fact that they had a glut in the market; but if you want Mr. Waterer to warrant them he will do it.

Q. Do you think those varieties cheap?

A. Not cheap, sir.

Q. Not such as you will order for Mr. Hunnewell's place?

A. No, sir; he will find out some time before March that some of them will die. The Roseam Elegans is not hardy. I think you mentioned that [to Mr. French].

Mr. French. — Do you consider Prof. Sargent's opinion worth notice?

Mr. Harris. — I think it is.

Mr. French. — Is he competent in regard to the price of rhododendrons that can be grown in this country?

Mr. Harris. — I think Mr. Sargent has not had the experience we have had. He could not possibly.

Mr. French. — Do you think he knows anything about the price?

Mr. Harris. — Yes, sir.

Mr. French. — Well, Prof. Sargent says such plants as are on the Common and Public Garden would not cost more than ten pounds a hundred; and those varieties I have I consulted Prof. Sargent with regard to buying them before I got them. Those varieties were approved by him and sent out by Mr. Waterer, knowing what plants were perfectly hardy in this country, and all those varieties were hardy.

Mr. Harris. — I think you will find the Roseam Elegans is not hardy. Will you let me look at your list?

Mr. French. — I will not believe it until I see with my own eyes that it is dead.

Mr. HARRIS. — Out of probably fifty of that variety we have imported within two years we have not probably two living to-day.

Alderman CLARK. — I hope Mr. French will give Mr. Harris the memorandum of the plants he has imported, so that we may know if he has imported some that are not hardy. I wish you to understand that not a single rhododendron imported by Mr. Kelsey has died; that all have lived.

Mr. HARRIS. — If they were imported last spring, it is not to be supposed that they would die during the past summer. Next spring we will know the difference.

Alderman CLARK. — I am not a professor of horticulture. I do not know anything about it.

Mr. HARRIS.— You asked me just now how much percentage of rhododendrons would die?

Alderman CLARK. — I took it for granted that some would die if set out.

Mr. HARRIS. — Still you have not given them a year's trial. I think he mentioned the Roseum Elegans, which is not hardy, and then the "H. W. Sargent," which is a little hardy; but I am a little surprised that he got them for two shillings apiece.

Q. Do you ever get them at that price?

A. No, sir.

Q. What do you give for them?

A. I think they are quoted in his catalogue at five shillings; but, as I said, oftentimes they put in those few choice varieties to make up a large order. They do it gratuitously, and it is not a criterion that you can buy them at two shillings apiece. Mr. French will not tell you you can go and buy the "H. W. Sargent" by the dozen or one hundred at ten pounds a hundred. As I said before, they may throw in a few to make up a couple of hundred plants.

Mr. RUFFIN. — Did you say that it costs about thirty thousand dollars a year to keep Mr. Hunnewell's place going?

A. Yes, sir.

Q. You mean that about that amount is expended every year?

A. About that amount; that is, in the importation of plants, and the wear and tear of greenhouses.

Q. That is what it costs every year?

A. Yes, sir.

Q. What would it cost to put the Public Garden in the same condition that you find Mr. Hunnewell's estate in to-day; with the same qualities of evergreens?

A. It would be almost impossible to make even a rough guess.

Q. A large sum of money?

A. But to plant it out with the large quantity of stuff we have it would cost fifty thousand dollars.

Q. Would fifty thousand dollars do it?

A. It would not give you the varieties of evergreens and rhododendrons we have. You must be aware that we have evergreens and rhododendrons in that place fifteen to twenty feet, and one thousand dollars would not buy them. You take an Anima

Sporadica, which is one of the most beautiful evergreens; you can buy little plants for about one dollar each plant, a foot high. But when you come to take them eight feet through and ten feet high, you can imagine what such plants would be worth, and we have any quantity of such plants on the grounds.

Alderman Viles. — What would it cost to keep the Public Garden in the same condition in which it was kept last summer?

A. The Public Garden alone?

Q. The Public Garden, — about eighteen acres.

A. To make a rough guess, I should think it would cost ten to fifteen thousand dollars. Of course I make this as a very rough guess, because I haven't any idea of the number of plants put in the grounds. By passing along the side of a ribbon you don't begin to see the number of plants put in there. You see only the effect.

Q. You can tell better than an amateur?

A. I don't look into it, but merely look to see the effect.

The Chairman. — What do you think of the Public Garden as a location for evergreens and rhododendrons?

A. I don't think it is a good location. Then I think the soil is uncongenial for the growth of rhododendrons. To go to work and get a mass of rhododendrons you must take out all that street sweepings and get some fresh soil from the woods and make a fresh bed of it. That is my idea of it. They will not grow there.

Mr. Galvin. — In all the cities you have travelled in, have you ever seen evergreens do well?

A. No, sir.

The Chairman. — What large cities have you been in?

A. New York, Philadelphia, and Albany. It is a well-known fact that no evergreen will stand in London, and they have a few deciduous trees.

Q. The statement has been made here by amateurs and experts that our Public Garden and grounds do not compare with the grounds of other cities; what is your judgment about the matter?

A. I suppose that is on account of its being more contracted. It isn't because it is not kept any better, or because the bedding is any better anywhere else. It is because in New York they have magnificent drives around their parks, and it is kept in tip-top style; and also in Philadelphia. But in regard to your bedding I think it, as a whole, compares very favorably with anything I have seen elsewhere.

Q. Our Public Garden compares favorably with anything you have seen?

A. I think so.

Q. According to size?

A. Yes, sir. I went to the Centennial last year and could not see anything different from the bedding you have here, — different from Boston. It is true they have large masses of stuff, but it is purchased at large prices, and they made a magnificent display. You cannot do it where you purchase things as you do. You want large houses, as they do in London and Paris, where you can put out those things.

Ald. CLARK. — What would it cost to put the same number of greenhouses on the Public Garden as are on Mr. Hunnewell's garden?

A. Mr. Hunnewell has done things by fits and starts, so that it would be almost impossible to say. I know there is one range he put up for fifteen thousand dollars, and I am satisfied I could have put it up for half the money, and it would have been better adapted for plants than it was. It was placed in the hands of an architect, and it is supposed that an architect knows what is wanted.

Q. You think the most economical way is to own a greenhouse?

A. I do, and I will tell you the reason why. If you go to work and try to buy plants you cannot always get them. To have plants you have got to have a house to put them in.

Q. Do you think it would be judicious for the City of Boston to build a greenhouse, for setting out thirty thousand or forty thousand plants a year?

A. I don't think you could get them as cheap as you could grow them.

Q. Do you think it would be a judicious thing for half-a-dozen or a dozen dealers in Boston to grow them and take the chance of selling them to the City of Boston?

A. That is the only way; they can take the chance of selling them.

Q. But should you think it a judicious thing unless they had some chance of selling them?

A. No, sir.

The CHAIRMAN. — Suppose the city advertised in the fall, stating the amount wanted, could they be raised?

A. They could raise this soft bedding stuff, such as you have on the Common; but this large stuff you cannot get except after several years.

Ald. CLARK. — You think the most economical plan is to have a greenhouse and run it on its own account?

A. I do, sir.

Ald. CLARK. — That has always been Mr. Galvin's opinion, that the city should have a greenhouse and own it on its own account; but I have had my doubts about it.

The CHAIRMAN. — You know something about the extent of the Public Garden and Chester square, and the other squares in the City of Boston?

A. I am not well acquainted with Chester square. I have been through it once or twice.

Q. How large and expensive a greenhouse would be required to supply the public grounds of Boston with flowers?

A. You would want three greenhouses, — one large one for growing this large stuff.

Q. How much would it cost?

Ald. CLARK. — To grow such stuff as we have?

Mr. HARRIS. — I should think it would require two or three houses one hundred feet long and eleven feet wide, to grow all the stuff you want.

Ald. CLARK. — We have the Public Garden, and the parks in Charlestown, South Boston, and the South End?

A. Anybody can easily calculate what it will cost if you put out the quantity that can be raised in a greenhouse one hundred feet long by eleven feet wide.

Mr. GALVIN. — If you double that quantity?

Ald. CLARK. — How much would you want for double that quantity?

A. Double the amount of houses.

Q. How much would the houses cost?

A. Such houses could be built for eight hundred dollars apiece, and three thousand two hundred for one large house. I should prefer one good large house for large plants, such as foliage plants, ficuses, lantannæs, as they give effect to a place at once, and add greatly to its beauty.

Mr. WILBUR. — Do you think it would take four houses to raise thirty thousand plants?

A. It depends upon the size of them.

Q. Such plants as are in the Public Garden?

A. Yes, sir; I should think thirty thousand plants would have a chance. If you take four-inch plants it takes just double that space before you get them out. People do not bed them in houses unless they have hot-beds. It is more expensive to run a range.

Q. Do you think the proper time to advertise for plants would be in the fall?

A. I certainly should.

Q. Better than in the spring?

A. Certainly, because no man would grow them on a venture. I don't know how I could buy a thousand plants of any one variety next spring. I do not know of any one man in the City of Boston who would have a thousand plants of any one kind that I could purchase if he had no notice beforehand that I should want them.

Q. (By Ald. VILES.) Are you acquainted with the growing of trees?

A. Yes, sir.

Q. Have you ever been up on East Chester park?

A. No, sir. As I said, I don't know anything about it. I passed through it once.

Q. Do you think the stench arising from Roxbury Canal is injurious to those trees?

A. I cannot say; but I suppose any stench arising from any drain, sewer, or cesspool would be detrimental to vegetable life as it is to animal life.

Q. (By the CHAIRMAN.) All the florists in this neighborhood raise plants for sale every year?

A. Yes, sir.

Q. Could these florists also increase the number of plants in their hothouses?

A. Well, I do not say they could not increase them, but they grow a miscellaneous collection for transient customers. For instance, you want a dozen, and somebody else wants a dozen, of a

particular kind, and they probably grow one hundred or five hundred of that particular variety for their customers. But suppose I should wish to get all my stuff of them, and I should go and say, Mr. So-and-so, I want a thousand plants of either variety, neither of these men could furnish them; but by picking up fifty here and fifty there, and a hundred somewhere else, I might rake up the thousand; but then, remember, they would not all be sizable plants. Some might be five or six inches high, and some twenty inches. In making a ribbon-bed you have got to make your calculation ahead. It is rather a precarious position for a gardener to be placed in to find himself with a thousand plants of three different stages of growth. He wants them all of an even height to plant them with effect.

Q. (By Mr. WILBUR.) What would be the cost of running these four greenhouses you propose?

A. I should judge three men ought to run them well.

Q. (By the CHAIRMAN.) Could three men run the four houses?

A. Yes, sir. I am not speaking now of this common bedding stuff; less men could run them then; but if you want to grow this big stuff, it requires more labor and more skill.

Q. (By Mr. WILBUR.) Do you think it would take three men to take care of them if they were filled with the same kind of plants we have now in the Garden?

A. Two men ought to run them very nicely then.

Q. Do you think thirty-two hundred dollars would cover putting in piping, boilers, and everything?

A. Yes, sir.

Q. (By Mr. RUFFIN.) Do I understand you to say that in London, in the public parks, they had no evergreens, or could not grow them?

A. Away out on the margin of the city they do, but it is questionable if there are any around Hyde park, of any account at all.

Q. Is it because they will not thrive?

A. No, sir, it is because of the soot. The dust that gathers upon the foliage seems to check the pores; it closes the pores in them, and they cannot breathe.

Q. In the public parks of England do they have this class of evergreens and rhododendrons?

A. In the public parks they do. Take Battersea park, for instance, where they go in very extensively in bedding; they lay out a bed in all sorts of flowers and all kinds of tropical plants that you can imagine, and then they have men there squirting water over them from morning till night. They go around with their engines and squirt water over this foliage all the time. You can imagine how much more expensive it would be to do this work here, because the price of labor here is generally one-third higher than it is in England.

Mr. BRYANT. — Mr. Chairman, will you ask Mr. Harris if he thinks it was a mistake on the part of the city to abandon its greenhouse on the Public Garden?

Mr. HARRIS. — I do not think it was a mistake to abandon that

at all. I should never advocate having a range of greenhouses on the Public Garden, unless it was merely a conservatory. For bedding out and seeding I should want them in an isolated place, where the public could have no access.

Mr. Bowditch.— Mr. Chairman, will you ask Mr. Harris whether he is positive that there are no evergreens in the Hyde park in London?

Mr. Harris. — I did not say so. There are a number of parks in the neighborhood of London. Hyde park, I remember well, but I do not remember of seeing small evergreens there; there are some larger ones there.

Q. (By Mr. Bowditch.) Do you know what kind, sir?

A. I cannot recollect. I have not taken memoranda, sir.

Mr. Bowditch. — I believe the pine will grow in any city.

Mr. Harris. — Well, pines or spruces would be more apt to grow than rhododendrons I do not think you can make a rhododendron or a laurel live there. No large-leaved plant, I am satisfied, can breathe in such an atmosphere.

Q. (By the Chairman.) Can you tell us anything about the evergreens in the New York parks?

A. Oh, yes; there are some beautiful evergreens there.

Q. (By Alderman Clark.) You were asked by Mr. Bryant whether you thought it was judicious for the city to abandon the greenhouse on the Public Garden. Do you know anything about the condition that greenhouse was in when it was sold?

A. Well, sir, it was a dilapidated-looking affair to me.

Q. Do you know whether it was a greenhouse that was safe?

A. No, sir, I should judge not.

Q. You believe it to be unsafe?

A. I think it would have tumbled down if it had not been pulled down, very quickly. That is my idea of it.

Alderman Clark. — That is the reason why it was taken down.

Q. Do you think a public garden of eighteen acres is a suitable place to put up four greenhouses the size you speak of?

A. No, sir, I do not.

Q. (By Superintendent Galvin.) Did they attempt in New York, near City Hall, to grow evergreens there some two or three years ago?

A. There are none there.

Q. Did they attempt to grow them?

A. I could not say.

Q. Mr. Bowditch is very conversant with that locality. Do you know, Mr. Bowditch, that they attempted to grow them there?

A. I never said anything about evergreens in New York city.

Q. Have you heard that they ever attempted to grow them there?

A. I do not think they ever tried to grow a pine there.

Q. I am speaking of evergreens, sir.

A. A pine is an evergreen, sir. I think if they would try a pine they would find it would grow perfectly well.

Mr. Harris. — I don't know that I have anything more to say.

Mr. French. — I would like to say just a word in regard to

evergreens. I have just read a book on trees in London, which has just come out, and it says especially, though some have thought to the contrary, that evergreens, and especially rhododendrons can be grown perfectly well, and are grown there to-day. And, Mr. Chairman, with your permission, I would like to ask Mr. Harris one or two questions.

The CHAIRMAN. — Yes.

Mr. FRENCH. — Mr. Harris has acknowledged that Mr. Sargent is a competent judge in regard to rhododendrons. I would like to ask if he considers him a competent judge in regard to laying out of grounds, and whether his recommendations would be good for anything; whether he has done anything for arboriculture, for the culture of plants as a gentleman; whether he has done anything at the Arnold Arborita, at the Buzzey Institute, at his own place. Mr. Harris has lived at Mr. Hunnewell's, and knows what it is, — one of the most beautiful places in the country, — and he knows what other gentlemen's places are, Mr. Payson's, for instance. Now, will he tell whether Professor Sargent's opinion is worth anything in regard to laying out of grounds, and whether he has shown himself to have done anything worthy of note and record as a cultivator of plants, flowers, shrubs, and trees.

Mr. HARRIS. — In reply to that remark of yours I think that few young men in this country have done so much in this matter as Mr. Charles Sargent. His place has been wonderfully improved since he returned from Europe, no doubt; I am satisfied that this young man has done wonders. Mr. Hunnewell and myself were talking with Mr. Tailby a very short time ago, and he said there were few men that were closer observers of things generally than Mr. Sargent; whenever he entered a house, or whenever he entered grounds, his eye caught everything at a glance; and when a man is possessed of such a wonderful faculty as that he certainly must possess an extraordinary amount of genius. In the laying out of that new place at Brookline, — his father's, — he has done a great deal there and on his own place towards making them attractive: it shows that the gentleman is possessed of great ability.

Mr. FRENCH. — I tried in the beginning to get some idea of about how many plants were bedded out in the Garden; I think Mr. Galvin said in some remark, a few minutes ago, that there were some forty thousand, if I am not mistaken.

Alderman CLARK. — Mr. Chairman, for the information of the committee, I would state that the bills are in the auditor's office, which will be placed before the committee, showing just the number of thousand plants used and the prices paid.

Mr. FRENCH. — I think Mr. Harris made some statement in regard to the cost of these plants per thousand. Now I wish to say that I have a letter here from one of the most noted plant-growers about Boston, in which he answers a question in regard to what such plants would cost, and also for bedding large stuff. He says that the best quality of verbenas, carnations, petunias, heliotropes, and similar plants, he could furnish at forty dollars per thousand; and the class of begonias, centurias, geraniums, fuchsias, and such like, can be furnished at sixty dollars per thousand. I only give that as a piece of information for the committee.

Q. (By the Chairman.) Who is the florist that you refer to, Mr. French?

A. Mr. William C. Strong, of Brighton, Mass.

Q. (By Superintendent Galvin.) Does he say in what size pots he will deliver them, Mr. French?

A. He says, "of the usual size and best quality." You can tell best what the usual size is.

Mr. Galvin. — The usual size is from four to five inches.

Mr. French. — That is the size then; he says, "of the usual size and best quality."

Q. (By the Chairman.) Mr. French, you were asked a question by the Chairman of the Committee on Common and Squares in relation to the varieties of rhododendrons you imported. Now you have conveyed an impression to this committee, or have tried to convey an impression to the committee, of the price of rhododendrons; Mr. Harris conveys an entirely different impression; will you please give to the committee the varieties of rhododendrons you imported, and the names?

A. Yes, sir; I would be very happy to do so.

Alderman Clark. — And the number of each variety?

Mr. French. — I offered to put in for the committee the varieties, names, bills, and everything else, if they wanted them.

Mr. Harris. — I think I stated that the rhododendrons the gentleman mentioned for ten pounds per hundred, as he says he paid for them, — I know that they can be purchased at that rate; but if you go into a little more elaborate ones, and want some high-toned varieties, you have got to pay a bigger price.

Mr. Bryant. — Now will Mr. Harris state what varieties in the Public Garden are so very high-toned.

Mr. Harris. — I do not know what varieties are there.

The Chairman. — Has Mr. French any of the varieties on the Public Garden?

Mr. French. — Some of them are the same, I think. Some of them are the same, because I have seen some of the same variety; but of course there is a larger variety than I have. But Mr. Harris has kindly admitted that Mr. Sargent is a competent judge in that matter, and Professor Sargent has seen those on the Common, and he said they can be bought of Mr. Waterer for ten pounds per hundred. The varieties that I have I would be very glad to read if the committee wish to take the names. They are the Roseam Elegans, Album Elegans, Purpurium Elegans, Purpurium grand de florum, Everestianum, and the "H. W. Sargent." I think these are all the varieties I have.

Alderman Clark. — Mr. Harris, you have heard the statement read in regard to prices of plants which Mr. Strong thinks he could furnish. What is your opinion in regard to the price of the same varieties that he read, from five to six inches high?

Mr. Harris. — Well, sir; there are several of the plants that Mr. French has named that can be furnished, probably, at that rate; but when he speaks about fuchsias at six dollars a hundred, I don't know what he means, — whether he means fuchsias just struck, or plants in bloom. It would be of little use for a florist, at least

for the City Forester, to purchase fuchsias in beds just about so high for bedding; then, again, it is a very small share which are ever bedded anyway.

Alderman CLARK. — How about geraniums that are in bloom?

Mr. HARRIS. — I don't think he mentioned geraniums. Did you mention geraniums, Mr. French?

Mr. FRENCH. — Yes, sir.

Mr. HARRIS. — Well, sir, as far as my experience goes, it cannot be done at that rate. For instance, suppose I want to make a yellow or an orange line of "Earl of Rawson." Mr. Strong, I rather think, would not presume to furnish them to me for less than twenty dollars per hundred.

Q. (By Alderman CLARK.) You have heard him read the variety he imported. Is that about the same variety you should import?

A. Yes, sir, just about the same; though they often import mixed varieties, seedlings, without any regard to classes.

Q. I understood you to say that one or two of these varieties you did not consider hardy.

A. The Roseam Elegans we do not consider hardy. Under certain circumstances it will survive the winter, but you cannot depend upon it. I don't suppose there is a more sheltered space than ours; and I suppose we have five thousand on our grounds from one foot to ten feet high and as large through.

Q. (By Mr. RUFFIN.) I understood you to say that this one variety that you mention would cost about a dollar apiece.

A. Five shillings, or a dollar and a half, — that is on the other side. I am not speaking of the price here. I think if you take his catalogue you will find that his price is five shillings and seven and one-half pence for the "H. W. Sargent" variety.

Q. (By Mr. WILBUR.) In the first part of your remarks you stated that the Garden ought to be laid out anew.

A. Yes, sir.

Q. What change would you recommend?

A. Well, sir, that would be a subject that would be almost exhaustless for me to try to go into.

Mr. RUFFIN. — He says it would cost fifty thousand dollars.

Mr. HARRIS. — It is not, to-day, what is considered the modern style of gardening. You want more grass there, a great deal, than you have, I think.

Q. (By Mr. WILBUR.) Do you think there are too many plants?

A. I think there are too many shrubs. You want more grass, and some grand terraces, twenty feet in width, for a ladies' promenade, with a ribbon from end to end, made probably not less than ten or fifteen feet in width; then you would have something to look at.

Mr. FRENCH. — I am sorry to say so much about that variety of rhododendrons called the Roseam Elegans; but there seems to be a good deal of interest in it, and I wish you would ask the City Forester if it was not among the varieties imported for the city.

Superintendent Galvin. — It was.

The Chairman. — The City Forester says it was among the varieties imported.

Mr. French. — One of the varieties imported by the city.

The Chairman. — Is there any other gentleman present who desires to say anything this evening?

Mr. Ruffin. — I would ask if Mr. O'Brien was summoned.

Mr. Clapp. — He was notified.

The Chairman. — The clerk answers that he was notified to be here. Is Mr. O'Brien here?

Mr. Clapp. — Mr. Daniel O'Brien was notified; I believe he was the person.

Mr. Ruffin. — He was the person.

Statement of E. R. Mudge.

Mr. Chairman. — I came in this evening more from curiosity than anything else. I think all tax-payers are interested in this subject, of the cost of maintaining the public grounds; and as I walk through them every day, from October until the following May, I have some opportunity of judging, I think, of the amount of labor expended, and of the cost which should be incurred by the city in maintaining them in the condition they are now in. I looked at the "Herald" last evening, and in it a statement was made, running through a number of years, of the cost of the Public Garden; and, if my memory serves me, it was something over eighteen thousand dollars a year for a series of years; the last three or four years it ran over twenty thousand dollars annually. I should think that a very large sum for the condition in which the grounds have been kept, and the kind of ornamentation which has been made on them. I have a place which I have kept for the last thirty years. The grounds about the house, including a garden, and that for ornamental purposes, comprises about eight acres, not counting nearly as much more which I have in vegetables and roots for the use of cattle in the winter, and a farm from which I cut from twenty to twenty-five tons of hay annually. The number of workmen, or gardeners, if you please to call them so, which are employed on the Public Garden, strikes me as altogether disproportionate to the amount of work performed. I do not know what other gentlemen have said in regard to this matter; I have not been in at any other hearing; but I should say that an average of twenty men ought to keep the Public Garden in perfect condition, and grow all the plants that are put out there if they had a proper house to do the work in. Certainly, at the present time, these men would be well paid at one dollar and fifty cents per day. In short, I should think an expenditure of about twelve thousand dollars a year would give you as good a result as has been obtained for twenty thousand dollars.

Q. (By Mr. Vose.) Are you speaking simply of the Public Garden?

A. Of the Public Garden alone.

Q. Without reference to the public squares or Common?

A. Not at all. That is not far, I think, from the estimate made by Mr. Harris, who is certainly as good a judge about such matters as you could have before you. It seems to me that the expenditure is very much larger than it should be.

Q. (By Alderman CLARK.) How do you get your information?

A. Simply from the account I saw in the "Herald."

Q. You did not see what the "Express" said about it?

A. No, sir, I did not see that.

Alderman CLARK. — The "Transcript," the "Globe," and the "Express" are the papers for information on that point.

Q. (By the CHAIRMAN.) The Public Garden and Common are divided up into walks, a large number of them, and the red gravel put on them is rather expensive material. Did you take that into consideration in your estimate?

A. Well, I have kept my roads and walks, which I would like to have gentlemen here go down and look at, although they are not in condition now, because I have been making very extensive alterations in my garden this autumn; but in the spring or next summer I would like very much to have you come down and look at the place, and see whether it compares favorably with the Public Garden.

The CHAIRMAN. — I have no doubt the City Government would be glad to accept the invitation next spring; they have got a reputation for making such excursions.

Q. (By Mr. WILBUR.) Mr. Mudge, you say you have passed frequently across the grounds from May to October. Have you, in any of your observations, seen anything from which you have had reason to believe that the labor was not judiciously employed?

A. Yes, sir, I have, in a very marked manner. I have seen three men planting a tree that you could balance in your hand; and I stood half an hour to see them work at one particular time, when one man could have handled it perfectly well. On remembering more particularly about it, I think there were four men. I stood there half an hour, and they did not plant that tree. They were considering in what way they should plant it when I left.

Q. (By Mr. VOSE.) Do you know whether it is planted yet?

A. I do not. I do not believe I would go that way to work to do garden-work.

Alderman CLARK. — The citizens on Arlington street were in the same condition as these men. A year ago they petitioned — every inhabitant — to have a row of trees set out along Arlington street on the Public Garden.

Mr. MUDGE. — It was just there that I saw this.

Alderman CLARK. — Immediately after they were set out, the same individuals — to a man — petitioned to have them removed.

Q. (By Alderman CLARK.) Now, Mr. Mudge, do I understand you to say that twenty men would be about the right number to employ to keep the Public Garden in the condition it has been kept in this year?

A. Yes, sir.

Q. Well, considering the variety of plants which have been there, the shrubs, the character of the walks, and the lawns, etc., have they been kept in respectable order, in your opinion?

A. Very good order, I think, considering the plants and their variety; but if you ask me whether I think it has been judiciously kept, and in good taste, I should say say no, decidedly.

Q. Oh, well, that is a matter of taste; but I mean considering the variety of plants which have been there, the shrubs, the character of the walks, and the lawns, etc., have they been kept in respectable order, in your opinion?

A. Very good order.

Q. (By Mr. Brown.) Do you think it could be carried on for twelve thousand dollars without a greenhouse?

A. I think it can be carried on with a greenhouse for that.

Q. I mean without, as it has been for the last few years.

A. I should not want to carry it on as it has been, certainly, for any less than they have expended; but the mode of carrying it on is what I object to.

Q. What the committee would desire to know at this point is, whether, in your opinion, if it has cost twenty thousand dollars a year, it has cost too much?

A. I should say so.

Mr. Brown. — We want to get at the fact whether the money has been judiciously expended.

Mr. Mudge. — I do not say here, gentlemen, and I do not wish you to understand me to say, that the money has not been expended there; but I do say that twelve thousand dollars a year should have kept the Public Garden in as good condition as it has been kept in, so far as the care of the plants and the walks and the grass and all that is concerned, with a proper selection of the plants, properly planted, and to have given as good an effect and better, in my opinion, than has been arrived at by the expenditure of the money which I understand has been laid out.

Q. (By Alderman Dunbar.) That would require the laying out of the Garden upon an entirely different plan?

A. No, sir, not altogether different. I think there are altogether too many plants of one kind there, and they are not well arranged; there is a profusion of very cheap-looking plants there; I think Mr. Harris would agree to that, — that a better selection could be made of a different variety.

Q. Yes, sir; but at a greater expense.

A. I should say you could get as good plants as there are in the Public Garden.

Q. (By Alderman Clark.) Would you have more flower-beds, or less?

A. I should have more grass and less flowers.

Q. (By Mr. Wilbur.) Now, Mr. Mudge, do you think that twelve thousand dollars would have been sufficient to keep the Public Garden in the shape it has been kept the last season?

Alderman Clark. — And pay for the flowers; that is to be understood.

Mr. Wilbur. — With the same plants as are there?

Mr. MUDGE. — Take the stock of trees and shrubs which you had there three years ago, and I think twelve thousand dollars a year since that time should have kept those grounds in good order, so as to satisfy any citizen of Boston; any gentleman of taste, and especially those who have travelled and seen other public grounds, in New York, Philadelphia, and all over the country.

Mr. WILBUR. — What I want to get at is this: do you think twelve thousand dollars should have been sufficient to keep the grounds in the same condition they have been this last year?

Mr. MUDGE. — That I know nothing about. So far as condition is concerned I should say yes; because I understand condition to mean the care of the plants after they are planted, and the care of the walks and of the grass; that is what I understand by condition. But if you mean to ask me whether it could have been done for less, being done as it has been —

Mr. WILBUR. — That is what I mean.

Mr. MUDGE. — That I have no opinion to offer about.

The CHAIRMAN. — That is all, Mr. Mudge. The committee are ready to hear any other gentleman.

Mr. MUDGE. — I merely say for information that I have given the size of my place, and I had five men on it this last year, including a foreman. It has been kept in such a way as to satisfy me; and they have kept — they have raised, as I have before stated, about six or eight acres — at least eight acres of vegetables, and cut twenty tons of hay.

Q. (By Alderman CLARK.) How large is your garden, Mr. Mudge?

A. I think I stated before, — about ten acres.

Q. A good deal of it in grass?

A. Mostly in grass, with borders and a few trees.

Q. (By the CHAIRMAN.) Is the ten acres cut every week?

A. Every week, and sometimes oftener.

Superintendent GALVIN. — Did not the gentleman say that he cut twenty tons of hay from so many acres?

Mr. MUDGE. — I made no such statement, whoever you are; I do not know who you are.

Alderman CLARK. — You have how many acres?

Mr. MUDGE. — One hundred and twenty altogether; but only fifty which are under any kind of cultivation. I think it is fair to say that there is at least one quarter part as much work done on my place as on the Public Garden, and there were only five men on the place this year.

Q. (By Mr. WILBUR.) About how many plants did you say you bedded in your garden?

A. I did not state; I do not know.

Q. Do you buy them every year, or do you have a greenhouse?

A. No, sir, I raise them all. I keep two men in the winter, and they take care of the house and raise all the plants that are put out.

Mr. BROWN. — If there is no other evidence, I move that this public hearing now adjourn.

The CHAIRMAN. — If no other gentleman present is desirous of saying anything to the committee, I will declare the public hearing closed.

Mr. BRYANT. — Were we not to have the pleasure of hearing Mr. Galvin's own statement on this subject? I so understood it at the last meeting.

The CHAIRMAN. — Gentlemen, I am authorized by the committee to state that this public hearing is closed, and if they think it right to have another public hearing, it will be announced in the newspapers.

STATEMENT OF GEORGE W. FORRISTALL, SUPT. OF HEALTH.

The CHAIRMAN. — A few minutes, gentlemen. Mr. Forristall is present. Will Mr. Forristall give the committee some idea about sweepings and other matters that have been dumped in different parts of the city?

Mr. FORRISTALL. — Yes, sir. We dump our dirt and sweepings anywhere we can find a place. I have drawn off a list of the number of loads we have deposited. I find there are about one hundred and forty different places where we have dumped it, and we have been called upon to get rid of thirty-six thousand loads. We dump the sweepings on any vacant lots where we can find an opportunity.

Mr. VOSE. — When you get out to Ward 24 I will take some.

Q. (By the CHAIRMAN.) Do you do that as an economical measure?

A. Yes, sir. It would not pay to take it off two or three miles. We must find the most convenient place, for it saves us labor and teams.

Q. (By Alderman VILES.) You have dumped a great deal on the land of Owen Nawn?

A. Yes, sir.

Q. With his consent?

A. Yes, sir.

Q. (By Mr. WILBUR.) Where is that locality?

A. Up near Hunneman street.

Q. Is there not plenty of city land in the immediate neighborhood?

A. We have dumped there several times, but they don't want it there.

Q. Have you dumped any on Albany street?

A. We have dumped on the school-house lot there. The best of it we sell.

Q. Have you dumped any between Albany street and Harrison avenue?

A. Yes, sir; between ten and fifteen cords.

Q. (By Mr. BROWN.) Does this include ashes?

A. No, sir.

Q. Are these street-sweepings fit for filling or loam when first taken from the street?

A. No, sir; I should think it ought to lay a while and rot.

Q. (By Alderman VILES.) That which you dump in your own yard, on Albany street, is the best quality?

A. Yes, sir, that we sell; the poorer stuff we dump on these vacant lots; we have dumped ten thousand loads on Boston wharf and never received anything for it.

Q. (By Alderman DUNBAR.) After a year or two does it become good?

A. Yes, sir; it makes good loam after a year or two.

Q. (By Mr. BROWN.) What do you get per load for the best of it?

A. We sell it for two dollars and a half a cord.

Q. And they come and take it away?

A. Yes, sir, the farmers take it away.

Q. (By Mr. WILBUR.) How much to the cord?

A. It takes about four cart-loads to make a cord. Our cords measure forty feet, and we calculate about four cart-loads to the cord. We are usually glad to dump it in any place we can find a chance. Sometimes people drive us off and won't have it.

Q. Were you ever requested to dump any on Orchard park?

A. I do not remember it. We have dumped some dirt there.

Q. (By the CHAIRMAN.) Will you leave that paper with the committee?

A. Certainly, with pleasure.

Account of Street Dirt from Jan. 1st, 1877, to Oct. 26.

Boston Wharf, 4704; Canal st., 3878; Medical College, 3080; East Boston, 1972; Jarvis, 1880; Bowen st., 1536; Cambridge, 1302; Stearns, 1316; Medford st., 797; Ninth st., 735; Exeter st., 570; Fair Grounds, 340; H. & Erie R.R., 330; Hittinger's Wharf, 240; Camden st., 225; Hugh Nawn, 349; Back Bay, 544; Mahan, Hampshire st., 189; Charlestown Neck, 123; Harrington, Vernon st., 202; Ward 24, 626; Hastings, 164; Storer, 216; Furbee & Bailey, 248; Burkhardt, 146; B. Jenney, 71; Swett st., 32; Hoskins' Pond, 16; Lord, James, 28; Parker st., 53; Dartmouth st., 18; J. F. Paul, 48; Rockland st., 67; A. D. Williams, 41; Highland st., 69; Burnham Bros., 40; Chelsea Bridge, 52; Stevens' Wharf, 40; Stickney & Poor, 63; Jackson Thos., 44; Eastern Railroad, 12; Gas House, 78; McGee, 26; Chas. Curtis, 85; Boylston ave., 28; Frye, 18; H. Smith, Watti ct., 4; Kelley, 42; Grundell, 29; Curtis' Wharf, 6; McDrury, 115; O'Brien, Jas., 85; May, Wm. 93; Chemical Yard, 79; Ward 22, 51; Paving Dept., 221; Highland st., 61; G. W. Decature, 177; Sewell, Day & Co., 13; Shapleigh, 14; J. D. Braman, 593; J. Lynch, 183; John Cook, 32; Jas. Davis, 78; Dudley, 27; Reed st., 59; Batchelder, 35; Bartlett st., 36; Howard, 178; Geo. Pierce, 62; Hartshorne, 32; Cox, Thos., 29; Preston, 35; Callahan, 39; Mrs. Baker, 45; Wales, 42; Clarkson, 20; A. Parker, 130; Heath st., 30; Joyce, 36; Riddle, 64; Bolton st., Dor., 51; Haggarty, 42; Donovan, 40; Baker, 40; Ward 20, 136; Saywood, 56; Carroughton, 44; Talbot, 48; J. Drury, 44; Coffee, 32; Meeting House Hill, 36; M. P. Wilder, 73; A. Bowditch, 71; Lovejoy's Wharf, 877; Kenniston, 32; H. Poor, 39; J. M. Pike, 70; Gormley, 176; Clark, 92; McCarty, 45; Jackson, 45; M. Kelley, 134; Brayden st., 83; Mahan, 48; Boston st., 148; Conway, J., 51; M. McClusky, 64; Peter Wallace, 54; Fallon, 104; Clayton st., 78; Prescott, 153; McMarron, 60; H. Dudley, 60; Jas. Redden, 33; J. Bird, 52; John Preston, 96; O. Hall, 52; S. Hartshorn, 48; W. Perry, 44; J. Berrigan, 52; F. Pierce, 36; M. Sweeney, 48; J. M. Brigham, 44; John Callahan, 44; S. Baker, 52; S. Dearborn, 48; J. Devine, 48; J. Lyons, 56; Jos. Parker, 44; Pat'k Riley, 22; Thos. Jackson, 22; H. Hubbell, 48; R. Wallace, 63; J. W. Bradlee, 76. Total, 36,511.

Mr. VOSE. — I hope you won't forget Orchard park when you are out there again.

Mr. Forristall. — I should be glad to dump it there, but would not want to carry it out there.

Q. (By Mr. Wilbur.) The Committee on Common and Squares have never asked you to put any on that square?

A. No, sir.

The Chairman. — I believe that is all, Mr. Forristall.

The Trees on the Common.

Mr. Bryant. — Mr. Chairman, at the last meeting the attention of the committee was called to the trees, which met with very severe treatment; and we understood at that time that Mr. Galvin would be called, or had been summoned, by the committee, and was to be put on and thoroughly examined; and in behalf of some citizens who were a good deal interested in the trees, I came in, hoping to hear Mr. Galvin's statement on that subject, and to get some information as to the authority by which the trees are dealt with as they are. I suppose this hearing is for the information of the citizens and of the committee, and I hope the committee will give them the benefit of this information from Mr. Galvin.

The Chairman. — The committee will certainly take the gentleman's suggestion into consideration. In this connection I would read a letter that has been handed to me within a short time in relation to the very subject the gentleman is talking about: —

Boston, October 29, 1877.

Mr. Galvin: —

Dear Sir, — In reading the testimony given on last Friday evening regarding the old elms on Tremont-street mall, I have been a close observer for the last thirty years. During these many years there have been some lost every year, and many that are there now are so diseased that they should be removed, as they are neither useful nor ornamental. Nor is this to be wondered at, when some forty thousand people travel over the roots of these trees, which makes the soil impervious to water. This might be seen two years ago; when gas-pipes were laid there for lighting the mall, it represented a bed of ashes more than anything else; and the tree which you removed from opposite 161 Tremont street ought to have been removed two years before, as it was both unsightly and dangerous.

D. T. CURTIS,
Firm of Curtis & Cobb, formerly at 348 *Washington street and* 161 *Tremont street.*

Mr. Bryant. — That is a subject, Mr. Chairman, on which there is a difference of opinion, and perhaps an examination of Mr. Galvin might elicit a little information on that subject.

The Chairman. — The committee have no desire to prevent the public from obtaining all the information, certainly, that they can obtain, and they will take this matter into consideration. This hearing now has been continued for three successive evenings, and the time of the present City Government is fast approaching its close. If we should go on with these public hearings we might, perhaps, be compelled to pass this matter over to the next City Government, or something of that kind. But, certainly, the committee will take the matter in consideration, and they will announce in the papers if another public hearing is to be held. I will again announce that the public hearing is closed.

Adjourned to 7 P.M., Wednesday, Nov. 7.

Fifth Session.

WEDNESDAY, NOV. 9, 1877.

The committee met at half-past four P.M., in the Common Council chamber, all the members present.

The Chairman, Alderman O'Brien, called the committee to order and said, The committee propose to hear those of the Committee on Common and Squares who are here, and also the superintendent, and any others who desire to say anything; and they have also concluded that if any one desires to ask questions of any one giving testimony, such questions will be put through the chairman. We will now commence with Mr. Howes, who is the only member of the Committee on Common present.

Councilman THOMPSON. — If Mr. Howes will pardon me for saying a few words, — the President of the Horticultural Society is here, and will have to leave in a few moments, and he would like to make a brief statement.

The CHAIRMAN. — That is a question for the committee.

On motion of Mr. Ruffin, it was voted that Mr. Parkman be heard.

STATEMENT OF FRANCIS PARKMAN, PRESIDENT OF THE MASSACHUSETTS HORTICULTURAL SOCIETY.

Mr. THOMPSON. — Mr. Parkman wishes to make some statements about rhododendrons, if you will ask him some questions, or allow him to do so without any questions.

The CHAIRMAN. — Will you please make your statement, Mr. Parkman?

Mr. PARKMAN. — It was only in reply to certain questions put to me by various people, which I was requested to answer, with regard to the quality and price of the rhododendrons planted in the Public Garden. I observed some of them early this summer when they were in bloom, and I knew nothing about what they had cost; but what struck me was their very inferior quality. I am very well acquainted with rhododendrons, and many of these I saw in bloom were evidently those that are known to florists and nurserymen as sorts, not named; mixed sorts — which always bring a low price; much lower than those which have names, and are choice flowers. Some among these were named sorts, but the majority I am very confident were not.

I have myself imported rhododendrons from the principal English growers, and I think I may say with full confidence that I have imported plants, about as large and quite as good as those which I saw in bloom last summer, at a cost here not exceeding fifteen dollars a hundred. The kinds of rhododendrons that are most suited for the decoration of public places, in open grounds, are not, as a rule, the highest priced. Rhododendrons are of all prices; the rarest kinds bring very high prices; usually the rarest kinds are not hardy, and therefore not well fitted for being planted in open

grounds, because they have to be removed in the winter. There are many of the best adapted for such purposes, named kinds, which may be bought of Waterer, the principal rhododendron grower in England, at whose place I was a few years ago. He has several acres devoted to rhododendrons, and these various kinds for public places, averaging about two feet high, may be bought at prices, according to size, from five pounds to ten pounds a hundred. The unnamed sorts, many of which are exceedingly adapted to the same purpose, and which the ordinary observer would not distinguish from the named sorts, are, as I said, very much cheaper.

I noticed further, that these rhododendrons in the Public Garden bloomed very freely last year, but that they will not bloom freely, and a great many of them not at all, next year. One particular reason of that is that the seed-pods were not removed after the blooming; consequently they took the strength from the plant and checked its growth, and had a very strong tendency to prevent its growing, and consequently it will have a very poor bloom next year. I speak of those in the Public Garden, and not of others. Those are the particular points I wish to answer.

The CHAIRMAN. — Are you acquainted with the names of the rhododendrons you saw in the Public Garden?

A. No, sir, I don't understand them sufficiently to tell the names by looking at them; some are without names and some have names. The named varieties are so very near in all qualities to each other that it requires a good deal of attention to distinguish them. It is the same as with roses. It is a question for a person who has given much attention to them.

Q. Are you acquainted with Mr. Fred. W. Kelsey?

A. No, sir.

Q. What would be the price, according to your knowledge of such matters, of select named varieties of rhododendrons?

A. Adapted to what purpose? They are of all prices. Select named varieties, about two feet high, adapted as well as any other for growth in the open grounds, may be had at from five to ten pounds a hundred of Mr. Anthony Waterer, in Surrey, England.

Alderman VILES. — Do you mean at that price there, or here?

A. At that price in England. The cost of freight and duties would be added to that. The cost would be raised somewhat considerably by freight and duties. But, as I said before, unnamed varieties can be had at a very much lower rate; and my estimate of those are based on prices paid here, all expenses included.

Q. Is the duty on cheap ones the same as on the best?

A. No, sir. It is according to the value of the plants and the invoice. A rhododendron of five shillings would have one duty, and one of one shilling would have a proportionate duty.

The CHAIRMAN. — Is Mr. Parkman a resident of Boston?

A. Yes, sir.

Mr. THOMPSON. — Will the chairman ask Mr. Parkman whether rhododendrons sufficiently good for all the purposes of the Public Garden could be purchased here?

The CHAIRMAN. — Will Mr. Parkman please answer that question, — if rhododendrons can be purchased here for the Public Garden?

A. That I am not able to say; I have never bought any here, because it is so much cheaper to import them. I believe that the nurserymen here ask relatively a very much higher price than the nurserymen abroad; so much so that it is more profitable for a cultivator to import them exclusively.

Mr. THOMPSON. — My intention to ask was not what they could be purchased for from nurserymen here. But Mr. Parkman said he some time ago imported a lot, and what I wanted to get from him was this — what he thought proper plants — rhododendrons — could be purchased for in England and imported, the city paying all expenses.

The CHAIRMAN. — Will Mr. Parkman please answer that question, — at what price proper flowers could be bought for our Public Garden?

A. I should think, sir, that those which I mentioned as best suited to this purpose, and very desirable kinds, — indeed much better than those in the grounds, — could be had by paying five to ten pounds there, and it will be necessary to add to that twenty-five or thirty per cent. for duties, — twenty-five per cent., it was formerly thirty, for duties, — also the cost of freight, which, upon my word, I don't know how much it would amount to; but it wouldn't amount to an equal sum, I think.

The CHAIRMAN. — Have you been a large importer of rhododendrons?

A. Formerly I imported a considerable number. I cannot say I have lately.

Q. How long since you imported any?

A. Four or five years.

Q. How many have you imported?

A. Perhaps five or six hundred.

Mr. THOMPSON. — Mr. Chairman, will you ask Mr. Parkman whether there wouldn't have been a considerable saving if the superintendent had attended to taking the seed-pods, and whether it was not wasteful to let them go without taking off the seed-pods?

The CHAIRMAN. — I do not exactly understand your question.

Mr. THOMPSON. — Mr. Parkman stated that the seed-pods were not removed and that the plants would not bloom so freely next season. I want to ask him whether he thought it an act of negligence on the part of the superintendent to let them remain.

Mr. RUFFIN. — He has stated already that it prevented them from flowering and retarded their growth.

The CHAIRMAN. — He has already stated that it prevented them from flowering so much next year. (To witness.) Have you anything more to say upon that point?

A. Nothing. I spoke particularly of the injury it does to prevent them from flowering. Of that result there can be no doubt, because the flower-buds are formed in the summer preceding bloom.

Q. Do you mean to suggest to the committee that the rhododendrons on the Common are improperly planted?

A. No, sir; I do not. I mean to say that the seed-pods were

not removed, as they bloomed very abundantly, which would be necessary in order to insure their flowering next year; and that many of them will not flower next year for that reason.

JOHN M. GALVIN. — I should like to have you ask the gentleman if he has noticed the rhododendrons which are around the Old Elm on the Common? I think he said he had seen only those on the Public Garden. There were some on the Common included in this lot. Before any judgment is passed upon them perhaps you had better see the whole lot. There were quite a number planted around the Old Elm inside the fence.

The CHAIRMAN. — Has Mr. Parkman noticed the rhododendrons there?

A. No, sir. I never observed them. The only ones I saw were those in the Public Garden.

Q. Did you make it a special business to look at them particularly?

A. Not at all. I passed by them on my way from the Providence Station at various times, and received a very distinct impression, without having any question arise in my mind, of their inferior quality.

Mr. BRYANT. — Will the chairman ask Mr. Parkman if the figures given are those of his own importation four or five years ago?

The chairman repeated the question.

A. The first figures that I gave — fifteen dollars a hundred — was of plants that I imported some years ago myself. The second figure I gave, for named varieties, — five to ten pounds a hundred, — was from an offer from Mr. Anthony Waterer, including the names of the plants he proposed to sell at that price.

Mr. RUFFIN. — When was that offer?

A. Last year.

Q. But you didn't purchase?

A. No, sir. I did not.

Mr. BRYANT. — Will the chairman ask whether they could not be laid down here now very much cheaper than four or five years ago?

The CHAIRMAN. — Will Mr. Parkman answer in regard to the relative price of plants now and four or five years ago?

A. Not having imported any lately I should hesitate to give any opinion upon that point. As a general rule plants are cheaper now than they were then, in common with everything else.

Mr. BRYANT. — I should like to ask whether he has noticed the condition of the trees as he passed to and from the Providence Station?

The CHAIRMAN. — Have you noticed the condition of the trees?

A. I have in some cases.

Q. What do you consider their condition?

A. Many of them rather in very poor condition.

Q. In what respect?

A. In dying at the extremities, and general signs of want of vigor. Those planted in the Common itself — in the grass part of the Common — as a rule look very well. I speak of those in the malls.

Mr. WILBUR. — On the Tremont-street mall?

A. Yes, sir. Along there, chiefly along there on the Tremont-street mall.

Mr. BRYANT. — Whether Mr. Parkman has noticed the cutting down of any trees that seemed to be sound in the stump?

The chairman repeated the question.

A. I don't recollect noticing anything of the kind, sir.

Mr. WILBUR. — What, in your judgment, do you consider the cause of the trees dying on Tremont-street mall, or the decayed condition they are in?

A. I think it was mainly due to the hardness of the ground, produced in some cases by concreting, and in other cases by the simple hardness of the malls, shutting out water which ought to reach their roots, and conducting it away through the gutters into the drains, so that the trees were dying of thirst. Those of the trees that stand on the edge of the grass, so that the roots on one side can penetrate the grass, can get a reasonable amount of moisture. Others are not so situated, and are surrounded by hardened gravel, especially where the asphalt has been laid, and those have suffered most from the water which they need being conducted away. An elm-tree is, especially, a very thirsty thing, and requires a vast amount of moisture.

Mr. WILBUR. — And you consider the trees haven't been well taken care of on the Common?

A. I think that provision might have been made for supplying their roots with water to much more advantage, and overcoming this difficulty. There are means by which it might be done.

The CHAIRMAN. — What would be the effect of large masses of people passing over the roots of those trees?

A. The only effect would arise from the pressing down and hardening of the ground, and making it impervious to water. The roots like to come up to the surface to get moisture, and if the ground is so hardened, it is impossible for the moisture to penetrate to them, and the trees suffer.

Mr. BRYANT. — Is the life of a tree dependent largely on the protection of its branches, if the branches are the lungs of the tree, and what would be the effect of cutting away those branches?

A. Cutting away the branches when the tree is in full growth would be very destructive. Cutting them away when the tree was at rest and not in growth, if it was done properly, in such a manner that the stump would not be so exposed that moisture could penetrate and rot down the branch, would not injure it. But summer trimming will injure it, though in some cases the growth is so great that it is desirable to check it.

Mr. WILBUR. — Have you ever noticed any of the trees being pruned in a season when it would be destructive?

A. I have not been in the way of noticing it.

Mr. BRYANT. — May I ask, when the tree is pruned at any time, if bleeding is prejudicial to the life of the tree?

The CHAIRMAN. — Will Mr. Parkman please answer that?

A. Yes, sir. It is always an injury, and attempts are always

made under culture to stop that bleeding. The stumps are sometimes burned, as in the case of human amputation. It is always so much life and vitality taken from the tree.

The Chairman. — What season of the year do you consider proper for pruning?

A. Very early in the spring, in most cases, after the severity of the cold has passed, and there is less motion of the sap. Then the bleeding is much more easily stopped, and, in many trees, it never takes place at all.

Mr. Brown. — Do you cast any reflection upon the City Government or the Superintendent of Common and Squares for the condition of these things?

A. I said nothing at all; but I was called upon merely to answer questions, and I have answered them.

Statement of Osborne Howes, Jr., Chairman of the Committee on Common, etc., on the part of the Common Council.

Mr. Howes. — I suppose that the committee are investigating the Committee on Common, rather than that a statement is to be made by that committee. I don't know what the course of procedure is to be, or what the committee desire to have me state.

The Chairman. — I will read the order, and then, perhaps, you will understand it better.

The chairman read the order, and continued: Now we would like to know if any neglect has occurred in the Department of Common and Squares, and who is responsible for that neglect? You are a member of that committee.

Mr. Howes. — The investigation, I may say, I think was brought about by the fact that the committee was short of money; perhaps more particularly on account of the fact that a very large amount of money had been expended in laying out the grounds around the Soldiers' Monument. As to the laying out of that money there, which it is said will amount to about nine thousand dollars, I must say that the committee are not responsible. A vote was passed, some time in the latter part of August, to the effect that the superintendent should be instructed to grade around the Soldiers' Monument. Mr. Galvin was in the room at the time, and a long and quite animated conversation took place as to the amount of money to be spent. It was stated at the time that to lay the grounds out properly might require a considerable sum, and we had no appropriation of sufficient size to undertake the work. But it was clearly intimated that it could be cleaned up around there for a small amount of money; and when the question was asked, it was stated that it would cost some three or four or five hundred dollars. I voted to have the grounds around the Soldiers' Monument graded, and I never supposed for a moment that it was to go beyond that sum. If Mr. Galvin got another impression, or an idea, from it, that he was instructed to go on and grade as he saw fit, it was a conclusion that the conversa-

tion there in no way entitled him to draw. That he went on afterwards, and did as he did, must have been due to his own judgment, or it may have been due to consultation with one or more members of the committee by personal conference. If that is the case, the committee, as a committee, may be relieved of the responsibility. I for one was not consulted, and had no idea that the expense was to be more than the sum I have stated, until two or three days prior to September. One fact may have been the cause of it; I was out of town until September, and had no occasion to go upon the Common and see what was going on. I think that will cover that portion of the statement as far as I have occasion to make in regard to the grading around the Soldiers' Monument.

The other portion is in regard to amount of money spent. It is very much as I stated in this Council when the question first came up. The superintendent has been pressed by members of the City Government, day in and day out, to put persons on the force, — that is, various persons living in the wards and needing work, who had not the slightest idea how to work on a farm or garden or anything else. I think Mr. Galvin will bear me out in the statement that men have been forced upon the Common and squares this year not worth twenty-five cents a day, and on that account the city had to pay more for its labor than it should have paid, and possibly the work might have been done by a smaller number of men.

The matter of hiring them was left, by vote of the committee, in Mr. Galvin's hands, the maximum being fixed. No doubt a great pressure was brought to bear by members of the City Government, and it was almost impossible for him to resist it.

Now, as to the rhododendrons, which seem to have exhausted a considerable amount of talk. A short time after the committee met in January, a Mr. Kelsey appeared in Boston, who has a nursery out West; and he brought a letter with him from some parties stating that Boston had been very deficient in the display of flowers; that Philadelphia and New York and other places had azalias and plants of that kind, and Boston never had them; at the same time intimating that Mr. Kelsey was the man to do the business with. The committee were not disposed at first to buy any; but, after a great deal of urging, and appointing a sub-committee to visit two or three places, and consult the proprietors of those places, where rhododendrons were raised, it was concluded to purchase a small order. He wished to have the city take a thousand; but it was cut down to five hundred. As to the quality of the rhododendrons and the price at which they were to be bought the committee knew nothing, and with the exception, possibly, of one member of the committee, none ever had any dealings in rhododendrons, and were therefore dependent for that upon Mr. Kelsey and Mr. Kelsey's warrantors, who seemed to be very reliable people. He made this offer, — that he would supply them for a dollar and a half, and that was the price at which they were laid down here; but the additional charge for boxing was for the cases that they came in. Whether the price was low or high it is rather difficult

for me to state, because I don't know anything about it. There was no way of buying them here, and if the city had been compelled to go across to London and negotiate for them the city never would have had them. It was merely Mr. Kelsey's urging that brought the city into it at all, and the purchase was made as an experiment. It was understood that the city might want eight or ten thousand farther along, and we made the purchase of five hundred to get some idea of the price and quality and hardiness of the plants.

The CHAIRMAN. — I have a copy of the record here: —

JANUARY 29, 1877.

All present except Mr. Pope.

Alderman Slade and Messre. Dee and Hiscock reported that they had conferred with Mr. Kelsey on the subject of purchasing rhododendrons for the public grounds; they recommended that five hundred rhododendrons and one hundred azalias be purchased, at one dollar and fifty cents each.

Is that the correct record?

A. I should say so. I had forgotten about the azalias. There were a hundred azalias besides. If I remember rightly, the report of the committee was that the plants would be warranted. As the committee knew nothing about it, they thought perhaps it would be better to take them so, than to take Mr. Kelsey's statement to the contrary.

The CHAIRMAN. — There is another vote here in relation to the Army and Navy Monument: —

AUGUST 28, 1877.

All present except Messrs. Smardon and Hiscock.

Voted, That the superintendent be authorized to have the necessary grading done on the grounds near the Army and Navy Monument on the Common.

That is a correct record?

A. I don't know that it is a correct record, and I don't know that it is not; I doubt very much whether a formal vote was taken. Very often, votes are put down, as possibly the Assistant Clerk of Committees will tell you; the discussions are informal, and he catches the idea of the committee and embodies it upon his report; but perhaps no direct vote is taken. Yet in that case I think there was a vote. However, the case is simply this: The vote as laid down on paper embodies but a part of the idea. The superintendent was there at the time. It wasn't as if a vote had been sent out from the committee with instructions. He received his instructions from the committee, and probably Mr. Galvin didn't see that vote as it was written in the book, but he got it from the ideas expressed at the committee meeting.

Mr. RUFFIN. — Do you remember what vote was passed at that meeting?

A. I wouldn't swear that any vote was passed at all.

Q. Do you say this record of the vote is incorrect?

A. I say it embodies only a portion of the fact.

Q. It is incorrect to that extent?

A. Yes, sir.

Q. What other portion was there to it?

A. The other portion was that the expense was to be about five hundred dollars.

Q. Was there a vote to that effect?

A. I don't know that there was a vote to that effect.

Q. Was there a vote to any effect as to grading in and around the monument?

A. I am not prepared to say that there was; but it is the natural inference that there was a vote to that effect.

Q. Not an inference; but what was voted?

A. I don't remember the taking of the vote at all, but I think likely a vote was taken.

Q. According to your recollection no vote was passed at all?

A. I don't remember the actual taking of the vote, because the proceedings are carried on in an informal, social, conversational way, as a rule.

At the request of Alderman Viles the chairman read the vote again.

The CHAIRMAN. — Isn't it customary to read the records of the previous meeting at all meetings of the Committee on Common and Squares?

A. No, sir.

Mr. BROWN. — Does that record say what members of the committee were present?

The CHAIRMAN. — "All present, except Messrs. Smardon and Hiscock."

There is another item here: —

The bills and pay-rolls for the current month were approved in detail by the committee, and the chairman was authorized to give his signature of approval.

Mr. HOWES. — Yes, sir.

The CHAIRMAN. — Was it customary for the committee to approve the pay-rolls and bills for the current month?

A. It has been, I think, since May.

Q. I see another vote here: —

SEPTEMBER 5, 1877.

Voted, That the superintendent be directed to cut down two trees designated by the committee, near the Army and Navy Monument.

Is it customary for the committee to designate what trees shall be cut down and left standing?

A. I don't know, I am sure. They did in that case. There were two trees said to obscure the proper artistic effect of the Soldiers' Monument, and it was considered advisable to cut them down. I think it was considered advisable to make some change. The members varied; one didn't want to cut any, and one went as high as five; and a compromise was made by cutting down two.

Mr. RUFFIN. — I don't understand you to say that this vote

which has been read in relation to grading around the monument, — did you say that that vote was not passed?

A. I said that if that vote was passed in that shape it was passed in a way not contemplated by the mover, whoever the mover was.

Q. But do you say the vote, as read by the chairman to-night, was not passed at that time?

A. I should say yes, on this ground, — we have no written votes that I know of. The only instance when a vote was written out was when I wrote it, and it was not on that occasion. Now Mr. Clapp was obliged to catch the idea of the committee, and put it down in his own words, because it would be almost impossible to get almost every word in the proper place.

Q. Can you tell us what vote was passed?

A. I say whatever vote was passed, or whatever was voted on that subject in any way, embodied the idea that the amount was to be about five hundred dollars.

Q. Was that mentioned at the time?

A. It was mentioned and clearly understood by the members of the committee afterwards.

Q. From your recollection was that put to vote, whether he should not exceed five hundred dollars?

A. No, sir; I don't know that any vote was put at all. I will tell you. The cost came up; it was stated that it might be two thousand five hundred dollars, and that was looked upon as being decidedly a large sum. One member of the committee moved that we ask for an appropriation of two thousand five hundred dollars in order to do it. It was in a burlesque way that he made it, because he didn't suppose the City Government would be likely to grant it. Instantly the point was raised that it wouldn't require as much as that, and we wouldn't require that if we did the entire work; and that vote was thrown aside. What I say on this point I am distinct about, because it was not only my impression, but that of other members of the committee. On the Saturday prior to the 17th of September, when I first heard that the amount was larger than that, I consulted Mr. Pope and also Mr. Slade, and I said, how much did you consider the grading around the monument would cost; and Mr. Pope said about four hundred dollars, and Mr. Slade said something under five hundred dollars. I told them that the expense had gone considerably above that amount.

Mr. Ruffin. — Did your committee have any information as to the cost of that work?

A. No estimate was made except in this general way.

Q. Made by a member of the committee, or how?

A. It was understood that they were going to clear up around the Soldiers' Monument in order to enable the committee to erect a stand there.

Q. Did the committee have any knowledge as to the necessity of making a road-bed?

A. No, sir. Nothing was said about it at that time.

Q. All the information that the committee got was from the members of the committee themselves?

A. Yes, sir. A request from the Committee on Army and Navy Monument came in to have something done; to have the ground around the monument cleared up; and that was what the Committee on Common at that time proposed to do.

Alderman VILES. — Were you not aware of it at the time that all this filling was going on?

A. Not till afterwards. I was out of town at the time. I knew they were at work, but just the quantity or character of the work I didn't know. I left town on the first of September, and I didn't get back till the first of October. I went up there on one occasion when they talked about cutting those trees.

The CHAIRMAN. — Did you say you left town on the first of September?

A. It may be about the 1st of September.

Q. Here is a record of the 5th of September. "All present."

A. I was in town every day, but did not go on the Common, though ordinarily I pass it every day.

Q. The vote of the committee, dated August 28, is: —

Voted, That the superintendent be authorized to do the necessary grading near the Army and Navy Monument on the Common.

Then on September 5th: —

All present except Mr. R. Pope.

The committee proceeded to visit the Common, for the purpose of inspection. On the Common it was: —

Voted, That the superintendent be directed to cut down two trees designated by the committee, near the Army and Navy Monument.

Wasn't any of the grading going on at that time?

A. No, sir, nothing extraordinary, nothing more than the ground around the monument.

Mr. RUFFIN. — Was it understood, and was it given to the superintendent, or anybody, to understand that he was instructed not to exceed five hundred dollars?

A. Yes, that was the statement of the committee, embodied or unembodied.

Q. Who did it come from?

A. It was the general talk. I think it was indulged in by all. I don't remember any statement.

Q. Do you remember any one person who made that statement?

A. I made it myself.

Q. To whom?

A. To the committee. I don't remember to what members personally.

Q. It was merely an opinion that it wouldn't cost more than five hundred dollars?

A. No, not in that sense; for if the work was to have cost more than five hundred dollars, I should have voted against having it done.

Alderman VILES. — Who stated that it could be done for about five hundred dollars?

A. I think there was an estimate made by Mr. Galvin at the time. It was stated that it was not contemplated doing any more than rounding it down or smoothing it off.

Mr. Ruffin. — Did Mr. Galvin make that statement to the committee at that time?

A. Yes, sir, at that time.

Mr. Wilbur. — Was there an actual vote passed authorizing this work to be done?

A. There must have been. A vote substantially as recorded there must have been passed; but at the same time it was with those statements made by the committee as to the amount and as to their ideas of the amount to be spent.

Q. Is it customary in your committee to pass an actual vote on these measures, or do you merely talk it over, and come to some understanding that is recorded as a vote? Is that your way, or do you actually make a vote?

A. Probably about half the time it is difficult to say whether a vote is passed or not. I think I called Mr. Clapp's attention to some vote in the record, and he said it was very difficult to tell whether a vote was passed or not, and he sometimes had to draw an impression of the intentions of the committee.

Q. Do you mean to say that the members of the committee at that time thought the cost of the work would not exceed five hundred dollars?

A. Yes, sir.

Q. Did you ever have any knowledge that it would cost any more than that?

A. Not until the Saturday preceding the 17th; that is, on the 15th of September; that is, I had knowledge of it. A day or two before that, some one came to me and said, "You are doing an immense amount of work around the Soldiers' Monument;" and I said I guess not a great deal, that there was going to be some clearing off. He said, "There is a large amount of work going on." The next day I happened to be at City Hall, and went to Mr. Galvin's office, and asked him how much he was doing up there, and how much the expense was going to be. "Oh, well," he said, "it would be considerable." I said, "Five thousand?" And he said, "Five thousand wouldn't begin to pay for it." That was the expression he used, in that off-hand way. It was news to me, because I didn't suppose it was going to be more than five hundred dollars.

Q. Did you see the work before it was done?

A. No, sir, I didn't go there.

Councilman McDonald. — I would ask if the superintendent was limited as to the amount of money to be expended in grading around the monument?

The chairman repeated the question.

A. He was limited in this way: he was in the committee room, as he is at all our meetings, and heard what the opinions of the committee were on that subject at the time.

Mr. Wilbur. — Were you aware of this record?

A. No, I didn't know what the nature of the record was until after the 17th of September.

Alderman CLARK. — I would like you to ask the gentleman if he was positive that Mr. Galvin, at the time of the conversation, stated that the cost would be five hundred dollars?

The chairman repeated the question.

A. Yes, sir, I am positive; quite so.

Mr. RUFFIN. — As the committee understand you, the suggestion that five hundred dollars would be sufficient came from Mr. Galvin?

A. I wish to make it plainer still, and will try and show that Mr. Galvin was not incorrect in that statement. Probably it would not have cost more than five hundred dollars to clear off the rubbish — not the work of grading in the sense of digging down the hill and making a new road-bed, which was a work which, as a member of the committee, I hadn't supposed was going to be done. But Mr. Galvin hasn't spent any more money in doing that work than is required; but it was the character of the work that I, as a member of the committee, didn't intend doing.

Mr. WILBUR. — Don't you, as a member of that committee look after work being done of such large magnitude?

A. Five hundred dollars is not a work of large magnitude.

Q. Do you mean to say that you had never had it intimated to you that it was going to cost more than five hundred dollars until the 15th of September?

A. Yes, sir; not until the 15th of September, and then I got it from Mr. Galvin by going up into his room, having previously received the information that this work was a large one.

Q. Who authorized Mr. Galvin to do it?

A. I don't know.

Q. Are you positive it wasn't the committee?

A. I am positive it wasn't at a committee meeting at which I was present; I distinctly remember the character of the conversation which took place at that time.

Mr. RUFFIN. — You learned from Mr. Galvin that the cost was going to be more?

A. Yes, sir.

Q. Did you remonstrate with Mr. Galvin?

A. Yes, I told him he had made a mistake and I didn't think he could get the money. I was so impressed with it that I went to Alderman Slade, who is on the committee, and asked what impression he had of what it was going to cost. He said five hundred dollars; and I told him that Mr. Galvin had said it was going to cost five thousand dollars.

Mr. RUFFIN. — Did you say that Mr. Galvin had no authority to do so?

A. Our impression was that the vote was passed limiting it to that amount.

Q. You had an idea that the vote was passed in that way?

A. Yes, sir.

Q. Did you say to Mr. Galvin that, under the vote, he had no authority to spend that amount?

A. I said he hadn't any right to go on as he had done.

Mr. WILBUR. — Was any sub-committee appointed to oversee the work?

A. No, sir.

Q. Don't you ordinarily have sub-committees on work of that kind?

A. Ordinarily we do, and we would have had one for that work if we had thought it was going to be of that magnitude.

Mr. RUFFIN. — What explanation did Mr. Galvin make when you told him he had no authority to spend that amount?

A. He didn't make any. I told him I thought it would be very difficult to get an appropriation for that through the City Council.

Mr. WILBUR. — Were you a member of this committee last year?

A. No, sir.

The CHAIRMAN. — This is your first year on the committee?

A. Yes, sir.

Q. I see another vote on this page, that Messrs. Pope, Howes, and Dee were appointed a sub-committee to purchase trees and bulbs for the Public Garden. Is it usual to appoint a committee for that purpose?

A. Yes, sir, it has been customary.

Q. At the next meeting I find a vote recorded to purchase bulbs for the Public Garden to the amount of seven hundred and fifty dollars. I find, as a general rule, that it is customary to state the amount such matters are to cost. Is it customary?

A. Very likely. When a vote has been passed making a contract, it is the custom to say so.

Mr. RUFFIN. — There is one other matter about those rhododendrons. I suppose you don't claim to be an expert in that matter?

A. No, sir.

Q. From your experience, as a member of the committee, was the dollar and a half apiece, which you paid for them, an unreasonable price?

A. We didn't consider it so at that time. There was a sub-committee appointed — I think the chairman has read the vote — to consider the subject, and they reported, I think, or at least they gave the general committee to understand, that that was a fair price.

Q. They were bought from a respectable man?

A. Yes, sir. He had these documents from various people around here as a warranty of his fair dealing.

Q. Do you remember who bought the rhododendrons? — the superintendent?

A. No, sir; it was the committee.

Q. Do you remember who that committee were?

A. The chairman has read it, and I know that Mr. Dee was on the committee, and I think Mr. Hiscock and one alderman; I forget which one.

Mr. BURKE. — Who first recommended the introduction of rhododendrons?

A. Mr. Kelsey, particularly. But then there were citizens who stated — I forget now; it is so long ago — that people at the West

End were very desirous of having rhododendrons there on the Public Garden, and also there were letters from various parties having large places, saying that the city ought to keep up the public grounds in the same state of perfection that they are in other cities.

Ald. VILES. — Is this the first year any were planted on the Public Garden?

A. It is the first year.

The CHAIRMAN. — The following question has been handed to me: —

Was not the work in such a condition on the 15th of September that it could have been stopped if the committee had been so disposed?

A. The work was virtually completed at that time, so far as the celebration was concerned; because they had to stop work on account of the celebration that took place on Monday. As to that, the work had been laid out at that time on such a scale that it was absolutely necessary to continue it. You could not stop it any more than you could a half-finished house. You would lose a great deal more money by that operation. The committee were forced to go on until the work arrived at the state of completion it now is.

Q. Can you tell us anything about the pruning of trees? I have here a vote of that character: —

Voted, That a sub-committee be appointed to take charge of the pruning and planting of trees in South Boston.

Is it customary, when trees are planted, to appoint a sub-committee to take charge of and direct the proceedings?

A. No, sir. I think there were some complaints in South Boston, presented by Mr. Pope, a member of the committee, that the trees had been allowed to grow too long there and obstructed the streets, and this committee was appointed to take charge of that case. I don't know that they pruned the trees themselves; but probably the superintendent had something to do with it.

Mr. BRYANT. — I would like to ask whether, in the discussions in committee upon which that vote is founded, they contemplated a change of the contour of the hill on which the monument stands, — cutting down the hill, and changing the form of the hill?

A. No, sir; not at that meeting. Of course it has been talked over since it became an accomplished fact, but not when the work was first entered upon.

Q. I suppose that answers the question. I mean whether any order giving authority for any work, any such change as has resulted, was contemplated; and I understand Mr. Howes to say it was not.

A. No, sir.

The CHAIRMAN. — What does the committee understand by a certain amount of grading and cleaning up that was to be done there? That contemplated some filling and grading and cleaning up?

A. The surface around the monument was in a very irregular and dirty condition. That was to be smoothed off, and possibly have a little terrace. I supposed that was to be the chief feature of the thing, — you might call it a terrace; a little plat of ground raised up around the monument.

Mr. Ruffin. — I suppose, in your answer to Mr. Bryant, you meant to say that you did not understand there was to be any change in the hill.

A. I mean it was not the understanding of members of the committee besides myself.

Mr. Bryant. — That is what I intended to ask.

Mr. Ruffin. — Can you tell us what was the understanding of the committee, with any certainty, as to any bills which would have to be incurred for it?

A. I have merely told you what was the impression of two other members of the committee and myself. Those are the only two I talked with on the subject. I spoke of it before the thing became generally known.

Mr. Wilbur. — Do you deny any knowledge of the record as recorded and read by the chairman?

A. I don't deny any knowledge. I said the records are somewhat loosely framed, and that Mr. Clapp has to take down what he thinks is the sense of the committee in very many cases. No doubt he did in that case. The vote may have been in that manner, but it was the same as if you instructed an agent to go abroad and buy goods, and gave him a letter; his instructions might be to buy from nine to ten thousand dollars' worth, and he might go beyond that and get you in debt; and on that letter he might have authority for it, but he would be transcending his powers as you understood them.

Mr. Bryant. — Whether the authority which he understands his committee intended to give by this vote was merely to fill the road and square by carting material to the monument without changing the form of the hill?

A. That was substantially the case. I don't know about filling the roads; but it was merely clearing off the top of the hill and putting it in presentable condition.

Mr. Ruffin. — Was anything said about changing the form or contour of the hill?

A. Not that I know of.

Q. Was anything said about filling the roads?

A. No, sir. I don't know that anything was said.

Mr. Bryant. — I would like to ask Mr. Howes how often the committee had meetings about that time?

The Chairman. — Will Mr. Howes please answer that question?

A. Well, there is only one stated meeting a month. They are held as often as are found necessary. That lies entirely with the chairman. He calls a meeting whenever he pleases. Prior to the presentation of the bills to the auditor it is customary to have a meeting; and then there may be one or two extra meetings a month, and none at all.

Mr. Bryant. — My object in inquiring is, whether, when the

committee passed a vote for work, they go on without knowing whether the vote is recorded, and whether there is any means of knowing whether when a vote was passed for five hundred dollars, it may not run to five thousand dollars. I desire to know whether that is the way of doing business?

The CHAIRMAN. — Does the gentleman understand that question? That covers the whole ground of taking care of the squares, which we have been trying to elucidate. I find here on the record a vote to approve the bill of Owen Nawn, for one thousand two hundred dollars, and one to purchase bulbs for seven hundred and fifty dollars.

Mr. RUFFIN. — What is the date of the approval of Owen Nawn's bill?

The CHAIRMAN. — It is dated August 1st, and there are various items of that kind. Can you tell us what relation the chairman of the committee holds to work that has to be performed in the interval of the meetings of the committee? What has been the custom of the chairman of the Committee on Common and Public Grounds?

A. I imagine he has general authority, and, if he considers anything necessary in relation to the work, he calls the committee together, and gets their opinion upon it.

Q. And that you understand is the duty of every chairman of a committee, in City Hall?

A. Yes, sir.

Q. That he superintends all matters relating to the department?

A. That he has general oversight of matters of that kind, and, if he considers any particular feature requires the attention of the entire committee at any other than the regular meeting, he calls them together to discuss the matter.

Mr. BRYANT. — But that is only under the authority of votes passed?

The CHAIRMAN. — Under the authority of votes passed?

Mr. BRYANT. — My question is this, — supposing they contemplate an expenditure of five hundred dollars, may it be carried on to the extent of five thousand dollars, without the knowledge of the committee?

Mr. HOWES. — It might be so under certain circumstances; and that is the case in the present instance. The records are never read at any meeting of the committee, — that is the record of the past meeting, — though I imagine that members of the committee go and look at the record-book and see how votes stand, and what has been done. I know that sometimes when members are not at a committee meeting, they will go and look over the records and see what was done at the meeting of the committee. But the votes have not possibly been recorded with that accuracy and certainty that they should be. To begin with, I think that hardly a vote in our committee this year, in the form as recorded, it is stated who made the motion. Now that is very customary in a committee; I don't know who made that motion, and I don't know that the motion was made, and I am very far from believing that the motion as recorded there is exactly as it was put.

Mr. RUFFIN. — In your committee meetings isn't it the habit of the chairman to state the question before putting a vote?

A. At times.

Q. What do you mean by that "At times"?

A. I am going to elucidate. The sessions of the committee haven't been conducted in a strictly parliamentary fashion. There is more of a happy family order, where any man states what he wants to at any time, and there might be five or six propositions before the committee at any one time.

Q. Has it been the custom and habit of the chairman to declare a matter carried without a vote upon it?

A. Not that I am aware of. But supposing I should stand up and talk about three or four minutes, and a large amount of conversation was carried on, and then the chairman would say that Mr. Howes' motion is carried; then the clerk has to go back and gather the vote from my statement at the time.

Q. Then my question is, would the chairman put the question in that way?

A. Yes, generally so.

Q. Would he formally state the subject?

A. He would state that Mr. Howes' motion or Mr. Pope's motion was carried.

Q. Would he state the question?

A. I think it has rarely been done more formally than a statement of the question in that way.

Mr. WILBUR. — Is it the custom to approve bills by the chairman, or the full committee?

A. It is done at a regular meeting of the committee; that is, at a meeting of the quorum of the committee.

The CHAIRMAN. — Was the approval of bills as carelessly done as the other work has been done, as you say?

A. It may be open to dispute whether the work of the committee has been carelessly done. The bills are taken up and read by the chairman; for instance, Mr. John Jones, so much; then the bills are thrown down on the table, and the members look over them, and if they object to any point about them they state the objection. There are a good many bills that each member of the committee knows all about, and if there is no opposition the bill is approved.

Mr. BRYANT. — In regard to Mr. Kelsey; he says, as I understand, that the contract was made with him upon the strong certificates obtained. I would like to ask if the committee did not personally see Mr. Kelsey, and discuss this matter with him?

A. Quite a number of times. I should say Mr. Kelsey came to my office six or eight times.

Q. And whether, or not, there was a meeting of the committee with Mr. Kelsey?

A. I think one or two.

Q. And where?

A. I think some members of the committee went to Mr. Parker's and met Mr. Kelsey at one time.

Q. And another time at the Revere House?

A. I was not present at the Revere House.

Q. That was by Mr. Kelsey's invitation?

A. I don't know. I wasn't at the meeting, if there was one there. I was attending a meeting of the Committee on Claims one afternoon, and after we got through, as is sometimes customary with the committee after its long and arduous meetings, they went to Mr. Parker's; and after I got through there with the Committee on Claims, I remember that I had been told of a meeting of the Committee on Common up there, and I went in there; and after they had finished dinner he stated his case somewhat largely. Who paid for the dinner I don't know. I didn't partake of the dinner, and don't know who paid for it.

Q. Whether any of those meetings which resulted in this vote were held either at the Parker House or Revere House?

A. No, sir; I think that was very early in the year. I think the meeting you have reference to must have been some time in January, and the vote on buying took place later.

The CHAIRMAN. — Has the committee ever held a meeting outside of their committee-room in City Hall, to your knowledge?

A. Yes, sir, several.

Q. Where, for instance?

A. Well, they held one upon the Common some time in September.

Q. I mean at the Revere House or Parker House?

A. I don't know that it was a meeting of the committee. The committee went down to the Revere House one time when the Mechanics' Charitable Association were desirous of erecting a building on the Common. I can hardly say that that was a meeting of the committee. They went at the request of those persons; but no votes were passed.

Mr. BRYANT. — It resulted in a unanimous agreement to give them what they asked?

A. Not at that time.

The CHAIRMAN. — Gentlemen who ask questions will please confine themselves to legitimate subjects.

Mr. BRYANT. — It was confined to a matter which Mr. Howes was discussing.

The CHAIRMAN. — I don't think so. It is rather a reflection upon the committee. They have a right to go to Parker's or the Revere House and meet other gentlemen.

Mr. BRYANT. — Yes, sir.

The CHAIRMAN. — Mr. Howes didn't state that they went there in the character of a Committee on Common and Squares?

Mr. HOWES. — No, sir.

Mr. BRYANT. — I beg the chairman's pardon. I intended no reflection upon the committee.

The CHAIRMAN. — I would ask the gentleman (Mr. Bryant) if he is the author of an article in the "Advertiser," over the signature of "Civis"?

Mr. BRYANT. — When I am called as a witness I will answer that question.

The CHAIRMAN. — I understand you are the author of it, and it contains a reflection upon this committee.

Mr. Bryant. — I am ready to meet anything I am the author of.

Mr. Wilbur (to Mr. Howes). You are a member of other committees?

A. Yes, sir.

Q. Do you consider that the way of doing business in the Committee on Common and Squares compares favorably with the mode of doing business in other committees?

A. The character of the business to be done is very different from any committee I am on, and therefore it would be very difficult to make a comparison of methods.

Q. In the way of passing votes, etc.?

A. There is only one other committee, and that is the Committee on Accounts, and the votes there are very few; hardly six in a year. In the Committee on Claims, of which I am a member, the votes are passed very much in the same system that they have been in the Committee on Common.

The Chairman. — Isn't it customary to read the records of committees you are on?

A. No, sir.

The Chairman. — For instance, there is the Committee on Printing; they never have a meeting without reading the records and having votes properly recorded. Of course the records of the Committee on Claims are too long to read, as they contain a large amount of evidence; but there are sewers, and other committees that I am acquainted with in the City Government, and they all have the records read, and always understand the votes passed.

Mr. Howes. — There is no committee on which I have been in three years' service in the City Government in which the records of the previous meeting are read.

Mr. Ruffin. — I want to clear up one matter, and understand it more perfectly. Did I understand you to say that there had been no meetings of the Committee on Common outside of City Hall, with the exception of this one on the Common?

A. I don't know that there have been other meetings of the committee as a whole. I don't know that this meeting at the Parker House, at which Mr. Kelsey was present, was a meeting. The members of the committee were there, and the chairman called upon Mr. Kelsey to make an explanation or statement of the case. How they got there, or whether they had a meeting here and adjourned there, I don't know. I came in very late, and merely came in and heard Mr. Kelsey's statement.

Q. There was no business done there?

A. There was no vote taken.

Q. Don't I understand it to be a rule that twenty-four hours' notice shall be given of meetings?

A. Yes, sir; twenty-four hours, or the previous day.

Q. Have you had any meetings at any place other than City Hall?

A. They have met at City Hall and gone to the Common, and the continuance of the meeting has been there.

The Chairman. — Here is a record: —

JANUARY 29th.

Voted, To purchase of Mr. Kelsey five hundred rhododendrons and one hundred azalias, at one dollar and fifty cents each, and that Mr. Dee and the superintendent be authorized to arrange the details of the purchase.

Do you remember such a vote as that?

A. Something of that character.

Q. In the first place (Reading) : —

Alderman Slade and Messrs. Dee and Hiscock reported that they had conferred with Mr. Kelsey on the subject of purchasing rhododendrons for the public grounds; they recommended that five hundred rhododendrons and one hundred azalias be purchased, at one dollar and fifty cents each.

Do you remember it?

A. I remember that a sub-committee made a statement something to that effect. Do you remember on what recommendations the committee made that report?

A. They went around to see about it. They talked something about going around to some place near Boston to see the rhododendrons there; but whether they went I don't know, because I was not on the committee.

Mr. WILBUR. — Did you ever have any knowledge of any guaranty about the purchase of those rhododendrons; of their living?

A. Yes, sir, to a certain extent, it was understood that they were to come across here and live. That is the nature of the guaranty under which they were bought.

Q. What is the nature of the guaranty?

A. I don't know. It was in the hands of a sub-committee and was left to them.

Q. It wasn't a matter of record?

A. It may be, but I don't know of any record.

Q. Wasn't there any amount of the purchase-money to be retained?

A. Not that I am aware of.

Mr. FRENCH. — How long a time were they guaranteed to live?

A. I don't remember how long. They were to be picked plants, adapted to this climate. I remember it was said to be a hardy plant.

STATEMENT OF W. W. CLAPP, ASSISTANT CLERK OF COMMITTEES.

The CHAIRMAN. — (Reading) : —

AUGUST 28, 1877.

All present except Messrs. Smardon and Hiscock.

Voted, To purchase bulbs of B. T. Wells for the public grounds to an amount not exceeding $750.

Voted, That the Superintendent be authorized to have the necessary grading done on the grounds near the Army and Navy Monument on the Common.

The bills and pay-rolls for the current month were approved in detail by the committee, and the chairman was authorized to give his signature of approval.

Do you remember that record?

A. Yes, sir.

Q. In relation to the vote that the superintendent be authorized to have the necessary grading done on the grounds near the Army and Navy Monument, — you were present at that meeting?

A. Yes, sir; I was.

Q. And this is your record?

A. Yes, sir; as Mr. Howes has stated, the minds of the committee are sometimes expressed in a very informal manner, and of course I have to get the idea of the committee as well as I can. In this particular instance, I remember that the vote was passed exactly as put by the chairman, Mr. Clark; there had been a good deal of discussion, and they were hurrying up and trying to get through the meeting. "Well, what shall we say?" says the chairman; "all those in favor of authorizing Mr. Galvin to do the necessary grading around the monument say aye, and those opposed say no;" and consequently I put the vote down in that way.

Q. Do you remember it distinctly?

A. Yes, sir.

Mr. Ruffin. — You were the clerk of the committee?

A. Yes, sir; I was, on that occasion.

Ald. Viles. — Was any amount named?

A. No, sir; there was no amount named in the vote. There had been an amount named, but nothing was said about limiting Mr. Galvin when the vote was put.

The Chairman. — Was Mr. Galvin present at the meeting?

A. He was.

Mr. Wilbur. — What members were present?

A. I don't remember; my record will show.

The Chairman. — "All present except Messrs. Smardon and Hiscock."

Mr. Wilbur. — Were they present when the record was made?

A. Yes, sir.

Mr. Ruffin. — Was the memorandum made at the time?

A. Yes, sir.

Q. Taken down at the time?

A. Yes, sir. I took it down myself.

Ald. Viles. — In your own mind did you expect it would cost five hundred dollars or five thousand dollars?

A. I didn't think much about it, and put it down just as it was made.

Mr. Wilbur. — You are certain in your own mind that Mr. Howes was present at that time?

A. Yes, sir. Mr. Howes is entirely right that motions are made in a somewhat desultory way, and it isn't always just clearly expressed, and I have to get as near to it as I can. In this particular instance, Mr. Clark put the motion in that way. He didn't state who made it, and I don't remember who made it. He said it in exactly those words.

Mr. Ruffin. — Do you remember any vote which was offered, or any conversation or debate which was had at that time, in which the superintendent was to be limited to five hundred dollars in expenditure?

A. No, sir; but I heard various sums mentioned, and five hundred dollars was one of them.

Mr. WILBUR. — Did you ever hear any other amount mentioned?

A. Yes, sir. My recollection coincides with that of Mr. Howes, in regard to somebody saying it would cost two thousand five hundred dollars, and some one saying, facetiously, that they must ask for an appropriation for that particular object. It was understood that they would make no application for any specified sum, but take it out of the regular appropriation.

Q. Was it understood that it would cost less than that?

A. I don't know what was understood. There was talk about less sums than that; some one said it would cost five hundred dollars.

Mr. RUFFIN. — Have you any recollection of Mr. Galvin's stating to the committee that the sum would be five hundred dollars?

A. No, sir; I don't think he made any estimate. I know he made no official estimate, for he didn't have time.

Mr. THOMPSON. — What was the particular circumstance which fixed this one instance so firmly in your mind without anything else being fixed, — the exact wording of the order?

A. Because I happened to remember that Mr. Clark put it in that way. I remember many other instances.

Q. Whether you made a record at the time or afterwards?

A. I made the record at the time on a sheet of paper, and afterwards copied it on the book.

The CHAIRMAN. — That work is always done in your department regularly?

A. Yes, sir; we make the records at meetings, and afterwards copy them.

Mr. RUFFIN. — Is this a correct copy of the memorandum you made at the time?

A. Yes, sir.

Mr. THOMPSON. — Whether you made the memorandum as full as it is now, or whether you filled it up?

A. I think I did in that particular thing. I wouldn't swear I put in every word. It was very short, and it was exactly as passed.

The chairman read the vote again.

WITNESS. — Very often there is no motion made, and I simply know what they are talking about; and Mr. Clark says, in an offhand way, "Well, gentlemen, you hear what has been said; those in favor say aye, and those opposed say no."

Alderman VILES. — Do you remember who stated about the five hundred dollars?

A. No, sir; somebody guessed at it.

Mr. WILBUR. — Was it your impression that that would be the limit?

A. There was no impression in my mind about the limit.

Q. How did you know what they were voting on? How should you know?

A. I know they were voting on grading around the monument.

Q. Without limit?

A. The words without limit were not in the vote. Mr. Clark

put it, as much grading as was necessary. How much was necessary I didn't concern myself about. Very often the vote is put in such a form that the superintendent is to do certain things to an amount not exceeding so much money. It is generally so four times out of six. But in this case it wasn't understood to be done with any limit. It wasn't when he put the question.

Q. You say he put it in an off-hand way. In making your records, wouldn't you consider what the talk had been?

A. Yes, sir. But when the statement was made by the chairman that the superintendent be authorized to do the necessary grading around the Common, he didn't state that the limit should be five hundred dollars.

Mr. Thompson. — Is there anything in the records or minutes that would tend to establish what is meant by "necessary"?

The Chairman. — Do you understand the question?

A. No, sir, I do not.

Mr. Thompson. — The necessary grading.

A. The necessary grading meant, to my mind, just about what was necessary to be done. I did not know it was to be extensive.

Mr. Ruffin. — Were those the exact words used by the chairman?

A. They were in that particular case.

Mr. Thompson. — Whether anything was said in debate to explain what was necessary? If they intended to fill up a depression, the necessary grading would be filling up that depression. Now, what do you understand by that word "necessary"?

Alderman Clark. — I would like you to ask Mr. Clapp whether or not that vote, as recorded, is precisely as put by the chairman and passed by the committee.

The Chairman. — Whether it is precisely the vote as passed by the committee?

A. It is precisely.

Q. Do you, in committee meeting, pay much attention to the discussion going on about matters of that kind?

A. Yes, sir, I do; but often I cannot.

Q. Or do you confine yourself to the votes of the committee?

A. I do pay attention to the discussion. I wasn't at all familiar with the ground there, and hadn't been there for I don't know how long. I didn't know how much grading would be necessary. I didn't stop to think how much grading would be necessary there.

Mr. Vose. — From the nature of your situation you wouldn't be presumed to know anything about it?

A. No, sir, I wouldn't be presumed to know anything about it. As I say, four times out of six the limit is put in. No limit was put in, in this instance. I don't say the committee didn't understand that it was to be five hundred dollars or three hundred.

Mr. Thompson. — Do you remember any sum larger than two thousand five hundred dollars being mentioned?

A. No, sir, I don't know of any larger sum being mentioned than that. Three or four sums were mentioned; three and five hundred, and two thousand five hundred were mentioned.

Q. Had you any impression in your mind, after the committee meeting was over, in regard to the amount that the grading would cost?

A. No, I didn't think anything about it; I was on some other committee probably that same afternoon.

Alderman VILES. — Are the meetings of the Committee on Common and Squares conducted any different from other committees that you are clerk for?

A. There is some difference. For instance, in the Committee on Common, as Mr. Howes says, there is more desultory conversation, and I try to follow as well as I can the ideas of the committee.

Mr. WILBUR. — Now, what did you infer was the amount?

A. I didn't pay particular attention; I heard various sums mentioned; but as to the vote, I have a distinct impression.

Q. As to the amount?

A. Some said four or five hundred dollars; some said two thousand five hundred dollars.

Q. What was the remark made about two thousand five hundred dollars?

A. Then some one said, "Let us ask for a special appropriation from the City Council;" but it was only talk.

Mr. BURKE. — I understand you to say that you have no recollection that Mr. Galvin stated any amount of money that would do the grading?

A. I don't think he did.

Q. You have no recollection that any certain amount was given for the amount of grading to be done?

A. No, I haven't. As to the work necessary, I supposed Mr. Galvin would get the idea from what the committee said, and that the chairman would, — it was generally understood by them better than I did what was necessary.

Q. Do you remember any of the committee asking Mr. Galvin how much it would cost?

A. I don't say that they didn't. I don't remember it; there was a great deal of conversation. I don't remember Mr. Galvin naming any sum.

Mr. WILBUR. — When did you first know that it had cost a larger sum than was at first supposed?

A. About the time that they voted to ask for an additional appropriation of fifteen thousand dollars.

Q. Was there any surprise manifested?

A. Yes, sir, I think there was; but I think the members of the committee had known of it for a few days or more, previous to the meeting, so that of course they were more prepared for it. Still there were remarks made at the meeting that it was a good deal of money to spend there. But they had got over the surprise, because the thing had been known two or three days then.

Mr. BROWN. — Whose duty was it to notify Mr. Galvin, after the vote passed, to authorize him to go on and do this work?

A. He was present at the time, and I suppose he went on and did it. Mr. Clark is chairman, and has the general direction;

but Mr. Galvin was present, and knew just what was done. Mr. Galvin sometimes looks at the records of the meetings to know just what was done. He knew what was done at the time.

Q. And left the committee room with the understanding that he had a certain duty to perform?

A. I suppose so.

Mr. HOWES. — Has Mr. Galvin read this particular record?

A. I don't know that he has.

Mr. POTTER. — I would ask if those votes are the only authority that the superintendent has in that committee for expending that amount of money?

A. I don't know what authority he has besides that. He might have consulted members of the committee individually, outside of the committee-room. That is all the knowledge I have of his authority.

Alderman VILES. — Mr. Clapp is not a member of the committee, but the clerk of the committee.

Mr. POTTER. — What I wanted to know was if that was the only authority the superintendent had.

MR. HOWES. — *Resumed.*

The CHAIRMAN. — Mr. Howes, here is another vote I would like to have you give us light upon: —

Voted, That a sub-committee be appointed to purchase the plants required for the public grounds.

This vote was passed about the middle of May, and Messrs. Hiscock and Dee were appointed. Is it customary to appoint sub-committees to attend to such work?

A. So I understand. I cannot say how it has been in previous years, but whenever large purchases are to be made it has been customary to appoint sub-committees. In fact sub-committees have to be appointed in undertaking and planning any work; they have appointed a sub-committee to consider it in advance.

Q. You heard Mr. Potter's question in regard to the authority of the superintendent, — is it not customary for the Committee on Common and Squares to leave the direction in the hands of the chairman during the intervals between the meetings of the committee?

A. Well, it is left more particularly in the hands of the superintendent. The superintendent is at the meetings for the purpose of getting the ideas of the committee and giving such information as we desire. We ask him on various points, and he states his opinion. He hears all the discussions that take place and any votes that are passed; he is there at that time and is to all intents and purposes a member of the committee; that is, he knows all that transpires; the authority is given to him, and I imagine he would consult the chairman of the committee, and yet I don't know that he would, and I don't know that he wouldn't; though I

don't know that the chairman has any authority, except possibly a certain amount of direction; he might say, do this way, or don't do this way; there is no authority conferred upon the chairman by the committee, except the matter of signing bills when they have been approved.

Mr. POTTER. — My question was whether those votes were the only authority the superintendent had for expending the money?

A. I should say that they were.

Mr. THOMPSON. — I wish you would ask Mr. Howes whether, as a matter of fact, Mr. Galvin's opinion and wishes are not conclusive in all matters regarding the purchase of flowers and questions regulating the gardening and trees and things of that kind, or nearly conclusive?

A. No, I should say not. In the matter of purchasing flowers it was referred to a committee rather than to Mr. Galvin; and in years past I think committees appointed to do that have gone to various parties in order to get their estimates upon the prices. But Mr. Galvin has been there, and when he has given his opinion regarding the laying out of some square or putting in a new fountain, it is customary to have a sub-committee to consider the plan and see what is feasible. For instance, it was proposed to put some fountains in the Public Garden this summer, and there was also some talk about putting a new one over in South Boston, and I know I was appointed a member of a committee on that; and after looking the thing over we concluded it wouldn't pay to do it, although I think Mr. Galvin had spoken favorably of a part of it in advance. We thought the one in South Boston too expensive, and one might be changed in the Public Garden. He is the executive officer of the committee, and they have to get his opinion on all subjects. I suppose they would defer to his opinion at one meeting, and might not at another.

Q. My question related more particularly to gardening and the matter of trees.

A. The planting of trees, with the exception of planting some up in Chester park, where I took some trouble about it myself, is left, I think, entirely in Mr. Galvin's hands, except the trees on Commonwealth avenue — I don't know; they may have been purchased by some sub-committee; I was not on it; but those in Chester park I took some trouble about, because I was on the committee, and they were purchased on a warrant, and if the trees didn't grow they wouldn't be paid for. The difficulty with them was, they were cut off too near around the roots. It was a mistake of the city accepting them. They were planted temporarily on the Common, and removed to Chester square at the South End. When they were there I told the man to stop planting them; and the man said they were not good because they had been planted down on the Common. I suppose it was a part of the general system of planting trees, and that Mr. Galvin cannot be everywhere at all times. Those men probably didn't earn twenty-five cents a day, and didn't know anything about it.

Mr. WILBUR. — Were you present when this vote was passed, authorizing the superintendent to do the proper grading around the monument?

A. I imagine I was. I was at a meeting when some vote of that character was passed.

Q. I want to know whether you were present when the vote was put by the chairman, and passed by the committee, as stated by Mr. Clapp?

A. Mr. Clapp's recollection of that vote is a great deal clearer than mine was. I was there probably when the vote was passed; but that vote, passed in that shape, is not within my recollection.

Alderman Clark. — Mr. Howes made the remark that the meetings are of a pleasant, social character; which is all very true. I would ask whether the committee-room isn't the only place for the discussion of matters appertaining to the Common and Squares; whether that isn't the only place where the committee have met to discuss matters; and whether they are not there several hours, one thinking one way, and another another way; and in that way a great deal of discussion takes place? I should like to have that understood. I don't know but what it might be inferred that we get together and talk about things without regard to our business.

A. There is a great deal to do in regard to the Common; that is, plans and projects are to be considered, and the meetings are, as Mr. Clark says, at times very long, and rather of a general character than of a particularly parliamentary character. For instance, Mr. Clark doesn't say Mr. Jones has the floor, and he can proceed; but the talk is general, as if five or six people were together talking on some pleasant subject.

Alderman Clark. — Mr. Howes stated that Mr. Galvin was generally present. I would like to ask whether it isn't necessary for the committee to have the superintendent present? And as he has been a member of the City Government several years, whether it is necessary and customary for the Superintendents of Streets and Public Buildings and Sewers, and the Chief of Police, and so on with the other heads of departments, for them to meet with the committees?

The Chairman. — Do you understand the question?

A. Yes, sir; but I don't know anything about it.

Mr. Ruffin. — So far as the Committee on Common is concerned?

A. Yes, sir; it is the custom, and I should say it is a very good one.

Mr. Curtis. — Mr. Howes has mentioned that workmen are recommended to the superintendent who are not competent. I would ask if he has recommended any man to the superintendent to employ him. I want to find out where the twenty-five-cent men come from.

The Chairman. — You say it is customary for the superintendent to employ men. Have you ever recommended any men to Mr. Galvin?

A. Well, yes. The point just now is, that since we have received our new appropriation the committee have taken the matter of hiring men into their own hands, and they have sent such men to the superintendent as they see fit. I think no vote was taken, but it was expressly stated that Mr. Galvin was to be the judge of

any man, and was to reject any man he considered disqualified in any way to do duty, that is all. We have twenty-four men. The eight members of the committee sent him three each. Before that Mr. Galvin used to keep a book, and in that book would be the name of each member of the City Government and the men he had employed there. Sometimes the men would work three days, and sometimes a month; and the man suggested by any member of the City Government would have his name entered under that member's name, and so on. I think during that time I had it may be two, and it may be three men, at different times. I should doubt very much whether I had what would be equivalent to a man employed all the time. I might have employed half a man all the time, but not more than that.

Mr. RUFFIN. — That is not exactly responsive to the question.

Mr. HOWES. — He asked me if I had employed any.

STATEMENT OF MR. CURTIS.

Mr. CURTIS. — It is very astonishing to citizens who don't know anything about the doings of the committee to hear a member of the committee state that workmen are employed who are acknowledged to be worth as little as twenty-five cents, and state that twenty-five-cent men are put at work which they are not competent to perform. Now, I should like to know who is competent to say whether there is anybody who watches them on the Common, or whether the Public Garden and Common are made as the receptacles for persons deserving charity, or for some other object? For instance, whether the superintendent would feel at liberty to refuse to appoint, to work on the Common, any man recommended by such an unusual person as a member of the City Government.

Mr. HOWES. — I suppose Mr. Galvin can answer that as well as I can.

The CHAIRMAN. — I was going to observe that Mr. Galvin is going to be upon the stand, and he can answer all such questions, which would be very proper, as to the number of men, and how they are employed.

Mr. HOWES. — I can answer the question by saying that the committee never imposed any limit upon Mr. Galvin in determining who should be hired. It is left to Mr. Galvin.

Mr. CURTIS. — To outsiders it seems as if there were some great object in view, either to provide them with money or to secure votes. Outsiders don't understand this matter, and so if I can throw any light upon this subject I should be glad. I follow the reports of committees with considerable interest, but this is the first time I have had the pleasure of addressing one of them.

The CHAIRMAN. — I suppose Mr. Galvin can answer those questions very clearly. It is impossible for an outsider to understand matters in City Hall. You will find in the lobbies of City Hall in one day, four or five hundred able-bodied men, all with large families to support, and no work to be done; and I think the members of the City Government, Aldermen Viles and Dunbar, and

all these gentlemen present, will bear me out and corroborate what I say, — we know them not. They came to City Hall seeking work, work, more work. That has been their cry during the last two years, and I have not seen any man there who has not been able to perform a day's work. They are pressing upon us for work; and we recommend them to the Paving Committee, to Mr. Galvin, or to any place where we think they can get a day's or an hour's or a week's work. That is precisely the inside of City Hall, and outsiders don't understand it. I don't know that I ever recommended any man that I knew to any committee or department in City Hall. Men come to me with letters, — men that I have never seen before, — and they are seeking work; and no man with a heart in him can refuse to refer them to some department that might possibly give them work. That is the whole story of this inside working in City Hall, so far as I understand it. I might go on further and state that I have no doubt some men who perform the least amount of work are the best able to perform it. Young, active men might be employed by the city, and they go there just for what they can make with as little work as they possibly can do. I have noticed it in all departments of the City Government that men will get work who should not be employed; and it is the duty of the superintendents, as far as I understand it, when they can find such men out, to spot them and discharge them. I merely make this explanation in answer to your question.

Mr. Curtis. — Being an outsider, I was not endeavoring to pry into the secrets of City Hall; but from your information I should think that it was quite proper that the Public Garden should be a receptacle for charity, and that the superintendent was put there as an overseer of charity.

The Chairman. — No, sir, I never understood it as such; the superintendent is put there to take charge of able-bodied men. If he has employed any other than able-bodied men, — any other than could do a good day's work, — I have no doubt that this committee, one and all, will censure him for doing it.

Mr. Curtis. — It is not able-bodied men, but able-minded men. If a man cannot know how to prune a tree, he should have an overseer over him. A man may be a good subject of charity, but not know how to prune trees.

Mr. J. M. Galvin. — If you will allow me, I will give the gentleman the information he desires in regard to pruning trees. I would state that as long as I have been employed in the Department of Common and Squares of the City of Boston there have been three or four men pruning the trees, and those men have been kept permanently employed. One of them especially has had a large experience in pruning trees, and no man who has been put on the Common during the later years has been allowed to cut the first twig off.

Mr. Curtis. — I don't want to get into a discussion with anybody but the chairman. I don't know anything about trees; but Mr. Parkman, the President of the Horticultural Association, says it has been badly done, and I am inclined to believe, with many of my friends, that it has been badly done. I don't understand now

who is being tried, whether it is the committee or the superintendent; but it looks as if several parties are trying to throw the blame upon each other, and as if others were probably trying to screen those who are most to blame, — the most incompetent party, I will say. I have heard a number of citizens who, like myself, know nothing about City Hall affairs and the Public Garden, express the idea that we are not getting what we pay for. I don't want to enter into any discussion.

MR. HOWES. — *Resumed.*

Mr. THOMPSON. — I would ask Mr. Howes one more question. He stated, at the beginning of his testimony, that the committee had limited the superintendent as to the number of men he employed. I should like to ask him what that limit was.

A. I have forgotten the exact number. It was in the first of the summer; I think it was about one hundred and twenty-five. I think there is a record of the number that he was not to exceed, that is, at the time when the most men were employed. I think there is a record of it, but probably Mr. Clapp could show it. I think I can find it, as I remember about the time.

[Witness looks over the Record Book of the Committee on Common and Squares, in the hands of the chairman.]

Mr. FRENCH. — I would ask Mr. Howes whether the matter of contracts with regard to the purchase of plants for the Public Garden has been brought up before the committee during the last year?

A. There was a sub-committee appointed to purchase plants. The entire purchase was given to that committee. I am not aware that they made any report one way or the other, except that the plants were purchased.

Q. You don't know in what way those plants were purchased?

A. No, sir. I don't know anything other than the appointment of the committee to make the purchase.

Subsequently, Mr. Howes stated: —

At the meeting of April 26th it was

Voted, That until otherwise ordered the number of laborers employed on the Common and public grounds shall not exceed one hundred and forty-five, and that the pay of one of said laborers shall not exceed two dollars and fifty cents per day; two to not exceed the sum of two dollars per day; and the pay of the remainder not to exceed one dollar and seventy-five cents per day.

That is the limit which the committee made; the maximum number was not to exceed one hundred and forty-five.

STATEMENT OF THOMAS S. ADAMS.

The CHAIRMAN. — You are a police-officer upon the Common?

A. Yes, sir.

Q. Will you please state to the committee what you desire?

A. Mr. Galvin desired me to relate to the committee what I knew about the tree cut down there this summer. It was a large American elm, probably one hundred and forty-five years old. It had been trimmed previously, so that there were three branches; one had been headed in along about the first of September or the last of August. On two of the branches the foliage all withered up and dropped off; the other branch had a few live twigs. It was very desirable, in my opinion, to have it cut down; at any rate, it would have to be cut down next year if it had been left.

Mr. Wilbur. — Do you have any knowledge of trees?

A. Well, I have spent all my younger days where there were trees, and for nineteen years I have been on the Common mostly.

Q. So you have a pretty good knowledge of the trees and have observed them?

A. So far as I have seen the trees there.

The Chairman. — Is the tree you refer to opposite Chickering's?

A. Yes, sir.

Q. It was the tree referred to in the discussions at these meetings?

A. It was referred to at the first meeting.

Mr. Bryant. — Whether he was present at the former meetings of this committee?

A. No, sir; I have not been here.

Q. Then he has no knowledge of what tree has been referred to in the discussions here?

A. I supposed it was that tree. It is the only tree that has been cut down there this season.

Q. The tree you refer to is the tree opposite Chickering's?

A. Yes, sir.

Q. I would ask whether there was anything dangerous about the tree at the time it was cut down?

A. I hardly think the branches would have fallen down. It probably would have stayed there this winter the same as the rest of them. But the tree was virtually dead.

Q. Whether Mr. Adams has examined the stump of that tree?

A. I know the size of it, yes, sir. I go by it every day. I looked at it to-day; yes, sir.

Q. Now one further question; I desire to ask whether he hasn't found it perfectly sound?

A. To look at the stump now, it has the appearance of a sound stump, but it is just like all those American elms that have been cut down since I have been on the Common, and there have been some fifty or seventy-five. They died out; they starved to death evidently.

Q. Whether there was any appearance of decay in the branches of this tree? Whether the branches stood out about forty feet from the tree cut down?

A. I should judge that two of the branches would reach nearly forty feet.

Q. Whether they were not quite sound?

A. There were three branches. The tree had been trimmed previously, and one of the branches had been headed off, and

headed in. The leaves had decayed on two of the branches, which I noticed particularly at the time they were cut down. The other branch had a very few green leaves or foliage.

Q. When and at what season of the year was that tree headed in? At what time of the year?

A. I don't think it was cut at all this year. It might have been this year, or last year, or the year before.

Q. Whether Mr. Adams has seen the lopping of any of those trees; whether he has observed it?

A. It is usually done in the summer season, when the foliage is on.

Q. Whether, or not, you have observed the bleeding, as it is called; the running down of the sap, as it is called?

A. Some trees will bleed, and some will not.

Mr. WILBUR. — How long have you been on the Common?

A. About nineteen years. I commenced duty there in 1858, the 22d of February.

Q. Have you ever observed Mr. Galvin and his men there? Whether he has employed men that he has been obliged to turn away, or has found fault with their work?

A. I have known him to discharge men because he thought they weren't competent and not doing their duty.

Q. Have you noticed any neglect on the part of Mr. Galvin?

A. I could not say I did.

Q. Have you ever known him to discharge men for not doing their duty?

A. I have heard that he had. I have heard that he discharged men for not attending to their duty.

Q. Has it ever come under your observation?

A. I have never been present.

Q. Have you ever observed men who were not doing their duty, and were idling away the time, and were incompetent?

A. Well, Mr. Galvin, I suppose, can answer that.

Q. But have you ever observed it?

A. I have observed, in my experience, a great many men of all classes that idle away time there; Mr. Galvin's no more than others. There are carpenters, plumbers, and men that go on jobs, and go there on the Common to make out a day after finishing a job.

Mr. VOSE. — You never saw a policeman idling away his time?

A. I suppose I have spent more time there on the Common than anybody else.

The CHAIRMAN. — What was your experience in planting and cutting down trees before you were an officer? Have you had any experience in that kind of business?

A. No, sir; not particularly. I have had occasion to cut down a good many trees, but not to set out many. The Tremont-street mall there is a very bad place to grow trees. In a few years there will be none of the original trees there.

Mr. THOMPSON. — Will you ask the officer if he — I gathered from his answer that he didn't see much difference between Mr. Galvin's men and a good many carpenters and plumbers who were loafing away time upon the Common.

A. Yes, sir.

Alderman CLARK. — I would like to have you ask the officer whether or no the men under Mr. Galvin's employ are not, as a general thing, as busily at work as the men employed by the city, or by individuals, so far as his observation goes?

A. I should judge they were.

Q. So far as your knowledge extends, they are as busily employed during the hours of labor as any other class of men would be, either in the employ of the city or individuals?

A. Yes, that is my idea: that Mr. Galvin's men have done as well as laboring men usually do.

Mr. RUFFIN. — Do you mean to say, or do I understand you to mean to say, that the men in Mr. Galvin's employ are as industrious as the average number of mechanics when at their work?

A. Yes, sir, that is what I should mean.

The CHAIRMAN. — Do you keep house?

A. Yes, sir.

Q. Did you ever employ plumbers?

A. I have very little. I have for a few jobs.

Mr. THOMPSON. — I should like to ask the officer whether he considers that Mr. Galvin's men work as much as the average plumber?

The CHAIRMAN. — Do you mean to state that Mr. Galvin's men work as much as the average of plumbers, or the average of mechanics or laborers that you see employed?

A. I should say the average laborers.

Mr. RUFFIN. — You mean to say that plumbers are notoriously idlers.

Mr. BURKE. — I think I understand you, Mr. Officer, to say that Mr. Galvin's men are as industrious as mechanics and plumbers, and others who come to do jobs for the city?

The CHAIRMAN. — That is as I understand it.

Mr. THOMPSON. — As I understand it they came there to make out a day?

A. Yes, sir.

Mr. BRYANT. — Whether it is the result of his observation that persons employed by the city do the same work as a person in private employ?

Alderman CLARK. — I understood him to answer that question, — that he thought they did.

The CHAIRMAN. — So far as your observation goes, is it a fact that men employed on the Common and squares do as much work as the average of men employed by outside parties, so far as your observation extends?

A. Yes, sir.

Mr. BURKE. — Have you had occasion to observe the men working on the streets that bound the Common, Beacon, Charles street, etc.? — I mean the city laborers.

A. I should say very frequently.

Q. Do you think the men employed on the Common are as industrious as the street laborers employed under Mr. Harris?

A. I don't know about the work being so heavy; but I don't know but that they spend as much time, — the average time.

Alderman VILES. — Do you think the men on the Common work as hard as the men on the streets working for the Health Department?

A. I don't believe that they do as hard work.

Q. Do they work as industriously?

A. The work is not so hard on the Common and Garden as it is in the Health Department; at least I don't think it is.

Mr. WILBUR. — Are they as industrious? Do they employ the time as industriously?

A. Well, the average of them.

STATEMENT OF ALDERMAN CLARK.

The CHAIRMAN. — We will now hear the statement of Alderman Clark. At the meeting of August 28th it was

Voted, That the superintendent be authorized to have the necessary grading done on the grounds near the Army and Navy Monument on the Common.

Will you please state to the committee your understanding of that vote?

Alderman CLARK. — I understand that vote was put and passed precisely as it is recorded, — precisely, — and it was perfectly understood by every member of the committee at the time.

Q. (By the CHAIRMAN.) In relation to the purchase of plants, I find votes here that plants be purchased by such a committee. Is it customary for the Committee on Common and Squares to appoint sub-committees to attend to that work?

A. I think it has been the case in almost every instance where plants and trees to any amount were to be purchased that a sub-committee has always been appointed to make the purchase, or rather, to superintend the purchase.

Q. (By Alderman VILES.) They do it in conjunction with the superintendent, do they not? They vote on the expenditures?

A. Certainly; in regard to the purchase of trees and plants, I have no doubt the superintendent is always consulted. I have never been upon that committee myself, but some three years ago —

Mr. RUFFIN. — [Interrupting.]

Alderman CLARK. — I wish to explain if you will allow me. Three years ago, I think Mr. Alanson Bigelow was on the committee and he and Mr. Curtis were appointed a sub-committee. Mr. Curtis was under the impression that plants could be bought a great deal cheaper than we were buying them for. I put Mr. Curtis on the committee because he was in the market and familiar with everything coming into the market, and Mr. Curtis and Mr. Bigelow advertised and had proposals come in from New York. Mr. Curtis finally came to the conclusion with Mr. Bigelow that the city were getting their plants cheaper from Galvin Brothers than they could from any other source, and that a better quality of plants could be bought of Galvin Brothers and at lower prices than they could buy them from any other source. That was the infor-

mation they gave me. I have forgotten whether there was a sub-committee appointed in 1875. I think last year Mr. Dee and Mr. Hiscock were appointed a sub-committee, as the records will show.

Mr. Thompson. — I would like to know if he does not mean Mr. Curtis Guild, and not Mr. Curtis?

Alderman Clark. — I mean Mr. Curtis; I am not referring to last year, but to 1874.

Q. (By the Chairman.) Do you mean Mr. Curtis, of the market?

A. Yes, sir; Mr. Curtis, of the market, who lives at Jamaica Plain; he came to the committee with the full impression that the plants we were paying six thousand dollars for could be bought for twenty-five hundred dollars; but after thoroughly investigating the subject, he made up his mind that we were obtaining plants cheaper from Galvin Brothers than they could be obtained elsewhere. Mr. Curtis Guild was under the same impression and also Mr. Russell, a very respectable gentleman, whom you know, a member of the Council two years ago, and who was on the Committee on Common and Squares, came into the committee with the same impression; but I believe they left the committee with the impression that plants were obtained cheaper of Galvin Brothers, and of a better quality, than they could be obtained from any other source in New England or in the United States. I wish to state, Mr. Chairman, that the year I went upon the committee myself, I thought the expenditure for plants was perfectly enormous and that the amount that had been paid by my predecessors — Alderman Little was chairman the year before I was — was an enormous amount to be paid for plants.

Q. Who was chairman previous to you?

A. Alderman Little was chairman of the committee, I think. I know Henry L. Pierce was chairman of the committee in 1871, and that was the year prior to Mr. Little's becoming chairman; then Mr. Little became chairman; and I have had the honor of being chairman for six years myself.

Q. At the meeting of January 29th, all present except Mr. Pope, "Alderman Slade and Messrs. Dee and Hiscock reported that they had conferred with Mr. Kelsey on the subject of purchasing rhododendrons for the public grounds, and they recommended that five hundred rhododendrons and one hundred azalias be purchased at one dollar and fifty cents each." They then proceed to vote that they will purchase of Mr. Kelsey five hundred rhododendrons and one hundred and fifty azalias at one dollar and fifty cents each. Can you give us any information on that point?

A. Well, I can give you considerable information about Mr. Kelsey. He was sent to us by some of our best citizens, and he became a perfect bore to me; so much so that I was sorry that the gentleman ever sent him to us. I know nothing about rhododendrons, or the policy of putting them in the Public Garden; but he was recommended by Mr. Hunnewell, Mr. Sargent, and various other gentlemen, who are gentlemen of experience in that style of flowers and plants; and after remaining here some time there was

a committee appointed, as the records will show, and I was under the impression that they went out into the neighborhood somewhere, and saw some plants of that character; but I am not sure about that. The committee decided to purchase five hundred of them as an experiment, and the price which they paid, or agreed to pay, was, I think, a dollar and a half each. We had to be governed a good deal by Mr. Kelsey; I did, because I knew nothing about rhododendrons. I think he said he could give us a cheaper article, or could furnish them for a great deal less money than any one else, and he proposed to furnish an article that was adapted to this climate, and that would live through the season. The result was that we purchased, as the records show, rhododendrons, to the number of five hundred, for which we paid, as the bills will show, a dollar and fifty cents each. Mr. Kelsey, I think, did give a little dinner at Parker's, at which the committee, most of them, were present. I was present. I had a very nice dinner, indeed, and I enjoyed it exceedingly. Mr. Howes was not present, because he had just partaken of a dinner at the expense of the city, and was not hungry. I was hungry, and I partook of the dinner at Parker's at the expense of Mr. Kelsey.

Mr. FRENCH. — With regard to Mr. Hunnewell, — I think Mr. Kelsey, when he spoke to the committee with regard to Mr. Hunnewell's endorsement of him, must have made some misrepresentation, because I have seen Mr. Hunnewell since the last meeting of the committee, and I think he used almost the same words that Mr. Clark has used, that he made himself a great nuisance. He came in there continually, and wanted him to buy plants. I think he said he had never imported any plants through Mr. Kelsey, but he had purchased some of him — a few — I think more to get rid of him than anything else. Mr. Kelsey wanted Mr. Hunnewell to come here and state his course in regard to Mr. Hunnewell, and Mr. Hunnewell very properly refused to do anything of the kind; and he spoke to me of some very questionable transactions on the part of Mr. Kelsey; so I think Mr. Kelsey must have misrepresented Mr. Hunnewell.

Alderman CLARK. — I do not know but Mr. Kelsey is a fraud; but he sent us some first-rate plants, and I know it was because these gentlemen were so anxious to have plants of this kind put upon the Public Garden that we decided to purchase them. We certainly should not have seen Mr. Kelsey had he not been recommended by gentlemen of the highest respectability. I understood Mr. Harris, Mr. Hunnewell's gardener, that Mr. Hunnewell had made purchases through Mr. Kelsey.

Q. (By Mr. RUFFIN.) Mr. Clark, you were saying that the vote as recorded on your committee book was put and passed just as it is recorded. Was there, at that meeting, any debate which would indicate a limit to the amount of money which was to be expended?

A. There was some talk about the amount, all the way from six hundred dollars to two thousand five hundred dollars. I did not suppose that either six hundred dollars or two thousand five hundred dollars would do the necessary grading around the monu-

ment; I supposed that five hundred dollars or six hundred dollars would simply cover up the ragged stone and make arrangements for the celebration of the dedication of the monument.

Q. When was the vote of that meeting, Mr. Clark?

A. I cannot tell you except by the records.

The Chairman. — August 28th.

Alderman Clark. — It was proposed, and a motion was made, in good earnest, I think, to go to the City Council and ask for an appropriation of one thousand five hundred dollars; I think you will have evidence of that fact.

Q. (By Mr. Ruffin.) Was it not made facetiously?

A. No, sir, in good earnest; so the committee did not understand that five hundred dollars was to do that grading. It was a motion made and advocated by one or two members of the committee.

Q. Well, was it not the general impression of a majority of the committee, that it would not cost a very large sum?

A. Why, I have no doubt, sir, that the committee supposed that for from five hundred dollars to one thousand dollars, they could level up there and get rid of the slivers and chips; but when they got to work it was an utter impossibility, and if the members of the committee had attended to their duty as I did, they would have known what was being done, and that the labor would cost more than five hundred dollars, or one thousand dollars, or two thousand dollars.

Q. Well, when and how was that impression changed? At this August meeting it was the impression it would not cost a very large sum; how was that impression changed?

A. I think it was changed by some members of the committee not having pluck enough to go to the Common Council and ask for an additional appropriation.

Q. No, the impression that it would cost a larger sum. At some time you had the impression, generally, that it would not cost a very large sum. That general impression was changed, and you thought it would cost more. When and how was that impression changed? Was it by the action of some other committee?

A. No, sir. After they had commenced to do the work there it was found that the work necessary even for the celebration could not be accomplished for anything like five hundred dollars. The grading was commenced, and, if we had stopped at an expenditure of five hundred dollars, it would have left the grounds in a dangerous condition, even for the celebration.

Q. There was no discussion upon the amount to be expended after this in any committee meeting, was there?

A. No, sir.

Q. (By the Chairman.) As chairman of the committee did you keep the run of this work during its progress?

A. I did, sir.

Q. And gave directions?

A. I had a general knowledge of what was going on, sir; the directions were left to the superintendent.

Q. (By Mr. Ruffin.) Was the amount of labor necessary to

be expended there to be limited in any degree by the wants of the committee who had charge of the Army and Navy Monument, or the desire of the sculptor who put up the monument?

A. No, I should say not. I do not know that the committee on the Army and Navy Monument or the sculptor had anything to do with regard to requesting this path to be laid out, or this point to be left off. They did request that one or two trees should be cut down; they wanted three cut down; the artist was very strenuous about that.

Q. Well, we were going to have a pageant here, a display and a meeting down at the monument, and you were making arrangements for that display and that meeting. Was the amount expended limited by the necessities of that display?

A. Well, I can only say, sir, that for five hundred dollars the grounds could not have been put in condition for the erection of a platform with safety in my opinion.

Q. The cutting away of the trees, I understand, was for the benefit of the monument?

A. For the benefit of the monument, as suggested by the artist and various other gentlemen who came there. I think we asked the members of the press, and they expressed their opinion; because I have a great deal of respect, you know, for the opinion of the press. I asked the representatives of the "Journal," the "Globe," and the "Herald" to go up there and express their opinions, and I think they did.

Q. Do you remember now just exactly how much money was expended?

A. Do I remember?

Q. Yes.

A. I cannot tell you, sir, because I have not got the bills.

Q. Can you give us an estimate?

A. I should say five thousand dollars.

Q. Something has been said about nine thousand dollars.

A. There has not been nine thousand dollars spent there. You will have all the bills before you, and you will be able to know to a dollar what has been spent for loam, for stone, and for labor.

Q. But, in your opinion, five thousand dollars would cover it?

A. I should say so.

Q. (By Alderman VILES.) Are the bills all in, Alderman?

A. I don't know, sir; I have not seen them. I suppose the committee can ascertain.

Q. Did you expect, at any time, that any part of this grading would be paid for by the Committee on Celebration?

A. No, sir, I cannot say that I did.

Q. (By Mr. RUFFIN.) Well, was any part of this in coöperation with the Committee on Celebration? Would you have expended so large a sum if there had been no celebration?

A. We should not have done anything except for the celebration. If the monument had not been completed we should not have done anything; but, the monument having been erected, we felt it necessary and important to put the grounds in good condition.

Mr. Potter. — Mr. Chairman, I should like to ask the gentleman whether, in his opinion, one hundred and forty-five men — such as are paid one dollar and seventy five cents per day — can be profitably employed under a superintendent at one time?

Alderman Clark. — Yes, sir, I do. I think, however, sir, that one dollar and seventy-five cents is, perhaps, at this time, fully enough to pay a laboring man; but we always intend to have good, first-class men. They are recommended by such men as our friend Thompson, and our friend Mr. Danforth —

Mr. Danforth. — Never, sir! Never, sir!

Alderman Clark. — And other gentlemen of the Common Council and of the Board of Aldermen.

Mr. Potter. — I would ask, if these gentlemen named by you are members of the City Council.

Aldermen Clark. — They are members of the Common Council, sir.

Mr. Potter. — I understand the chairman to say it was a part of the duty of the City Government to recommend these men.

The Chairman. — I beg to correct the gentleman. I think I was explaining the cause of members doing it.

Alderman Clark. — I wish to state for the information of this gentleman and the public that during the time I have been Chairman of the Committee on Common and Squares — and the superintendent will bear me out in it — I have never averaged more than one or two men during the whole six years. The reason why the committee have taken into their own hands the hiring the thirty men that are at present at work on the Common and Public Garden is simply because the superintendent refused to do it when he heard the committee would take the responsibility, after so many comments had been made upon his course of procedure.

The Chairman. — The gentleman misunderstood the chairman. If he will come down —

Alderman Clark. — Excuse me one moment, Mr. Chairman. I see that Mr. Danforth is anxious, and I wish to state that I understood him that he did not succeed in getting a man on the Common. I think he is an exception.

Mr. Danforth. — I wish to say to the gentleman that I never said that. I never sent a man to the Common for employment.

Alderman Clark. — I beg your pardon; I take it all back. I certainly understood you to say so.

Mr. Danforth. — I have had no conversation with you about putting men on the Common.

Alderman Clark. — I certainly understood Mr. Danforth to say that he did not succeed in getting one put on. Whether he made the statement or not, I beg his pardon; but I understood him to say that he did not succeed in doing it.

Mr. Danforth. — I never sent a man to be put on the Common.

Alderman Clark. — Mr. Danforth, I accept your statement, and apologize to you for having made a misstatement.

The Chairman. — I would state to Mr. Potter that since the first of January, in the corridors of City Hall, there have been from one hundred to five hundred men, — able-bodied men, — ranging

from twenty-one to forty years in age, physically able to perform a day's work, to all appearances, and they have been pressing for employment. They are unknown to members of the City Government; but they are men seeking employment, and are endorsed by very prominent gentlemen in the City of Boston.

Mr. POTTER. — Excuse me, but I understood the chairman to say, speaking in regard to the secrets of City Hall, that outsiders did not know the secrets of City Hall; and then he went further, and said: "What man with a heart could refuse to give them a recommendation?" I certainly understood him to say so.

The CHAIRMAN. — But I do not recommend these men as being capable of performing a day's work.

Mr. POTTER. — Not at all; not at all. I understood you to say you felt it a duty, as a member of the City Government, to recommend men to different departments. That is what I understood you to say.

The CHAIRMAN. — In the Department of Common and Squares, I do not know whether I have recommended any men to Mr. Galvin or not, this year, because I knew that it was impossible for him to employ them, he has had so many applications. I have sent a number of men to the Paving Committee for employment, and have recommended them; and I do say there is not a gentleman in City Hall who has not done precisely the same thing.

Mr. POTTER. — I suppose they have, and I understood you so. It was said we knew nothing about the secrets of City Hall; and I know no better way to get at them than by an investigation like this. We cannot come into your Council and make inquiry.

Alderman CLARK. — Mr. Potter, I am here to give you all information in my line. I want to make it as broadcast as possible.

Mr. POTTER. — I would like to ask the gentlemen if he witnessed the performance of the labor of these men on the Common, and whether —

Alderman CLARK. — Yes, sir, I saw these men at work upon the Common.

Mr. POTTER. — Any number of them?

Alderman CLARK. — A great many of them. When I was around I thought they actually earned at the rate of three dollars a day instead of a dollar and seventy-five cents.

Mr. POTTER. — Then I suppose I need not ask any other questions as to whether they performed their duty well.

The CHAIRMAN. — I suppose Mr. Clark means to state that, knowing him to be chairman of the committee, they were a little more active when he was around than perhaps they might be on other occasions.

Mr. POTTER. — I understood him to say that one dollar and seventy-five cents was a high price to pay; and yet these men were earning three dollars a day.

Alderman CLARK. — They probably put in a little more exertion, Mr. Potter, when I was around. I wish to state further, Mr. Chairman —

Mr. POTTER. — I presume that is so.

Alderman CLARK. — I wish to state further, Mr. Chairman, that

we have received more letters from gentlemen and ladies in the neighborhood represented by the gentlemen who come here, who have friends, and are anxious to get employment for poor people on the Common, than we have received recommendations from members of the City Council; and I have known several instances where gentlemen and ladies have written to me, urging the necessities and wants of the parties they have sent to me, — their poverty, their great desire for labor, — and I have said to Mr. Galvin, "If you can give this man employment, if you have room for him, and he is an able-bodied and good man, set him to work."

The Chairman. — I would like to explain this matter even more fully. While coming up to this investigation this afternoon, I received the following letter: —

83 Newbury street, October 31.

Alderman Hugh O'Brien, —

I take the opportunity of recommending to your notice the bearer of this note, Hugh Collins, who is anxious to obtain employment from the city in order to support his wife and four small children. He is a sober, temperate, and industrious man, and if through your intercession he can obtain employment you will have done an act of true charity.

I am, sir, with respect, your obedient servant,

R. W. LAWRENCE, M.D.,
Physician at Boston Dispensary.

The Chairman. — I have received thousands of just such letters.

Mr. Potter. — Are you under obligations as a member of the City Government to recommend any one?

The Chairman. — Not a bit, not a bit; but if the gentleman was an able-bodied man, and was recommended by a highly respectable man to me, and I could show him where to get work, I would be glad to do it.

Mr. Potter. — So would I.

Mr. Vose. — It does seem to me, with all due respect to the chairman and the gentlemen present, that we are rambling too much. We are not confining ourselves to the legitimate work of this committee. I trust that in the future we shall confine ourselves, in this investigation, to our particular work. Let us allow gentlemen to ask such questions as they please; but I hope there will not be any discussion going on here, for, if that is allowed, we shall have to sit here until New Year's Day. I believe in coming right down to the legitimate work of this committee.

The Chairman. — The committee will proceed with the examination of Mr. Clark.

Q. (By Mr. Wilbur.) Mr. Clark, has it been the custom to hire men or to have them recommended by members of the City Government in the past as it has been this year?

A. I understand that it has. As far as I am concerned I have always left the hiring of men to the superintendent.

Q. He has not been given any particular instructions as to how he was to hire men?

A. Never, sir.

Q. He has used his own discretion?

A. Entirely, sir.

Q. Do you consider it a good and judicious practice to have members of the City Government sending to the superintendent men to put to work?

A. No, sir, I do not.

Q. Has it ever been done to any extent in years past? Has it always been the custom?

A. I imagine that members of the City Council have for years past been in the habit of recommending men in the Department of Common and Squares, in the Paving Department, and in all the departments. I imagine so; but I have no personal knowledge except with regard to this year; I have always left these things, wherever I have been chairman of a committee, to the superintendent. I have left the hiring of the men and the number of men that were required upon the Common and Public Garden to his judgment.

Q. You have never given him any instructions in any way as to the number of men?

A. I think there was a vote passed by the Board of Aldermen that the number should not exceed one hundred and forty-five; that will be a matter of record.

Q. (By the CHAIRMAN.) You say that one hundred and forty-five men can be employed profitably on the Public Garden?

A. At certain seasons of the year, but not at this season.

Q. (By Mr. WILBUR.) Do you think the same amount of work can be accomplished by the present method that could be accomplished if the superintendent was left to hire such men as he chose?

A. I suppose that the superintendent ought not to hire any men who cannot do a good day's work. He undoubtedly employs some men for a short time who do not do or will not do as much work as others, but I presume he discharges such men.

Q. Never, to your knowledge, has there been any indication that work was not being performed as cheaply by the men employed as it would have been if this system had not been adopted?

A. No, sir, I should say not.

Q. (By Alderman VILES.) You say that the men apparently earned three dollars a day when you were round. Do you think it would be a good custom for the city to hire less men and more superintendents?

A. I think a good number of superintendents would be a good thing in all the departments of the city. I find it is so in my business; I find my men work a great deal better when I am about than when I am away; it is human nature, I suppose. You will find it so, I presume, Mr. Wilbur, as a carpenter, do you not?

Mr. WILBUR. — That has been my observation.

Q. (By Mr. WILBUR.) Mr. Clark, do you think any saving could be made in the Department of the Public Garden by having a greenhouse run at the expense of the city?

A. Well, I am not a competent judge about that. The superintendent has always recommended it, and has always said he thought it would be economy to the city to have its own greenhouse and raise its own plants. I certainly am rather inclined to

agree with him in that respect since I have heard the statements made here by gentlemen in regard to the cost of a greenhouse and the cost of running it. I am rather inclined to think it would be a good plan for the city to have a greenhouse and raise its own plants. I know Mr. Galvin has always said that it would be economy on the part of the city; but I have had no experience. I have never been fortunate enough in my life to own a place in the country where I could afford to run a greenhouse.

Q. Has the laying out of the grounds, and the planting and setting out of the plants, and the arrangement of them, been left entirely to the direction of the superintendent?

A. Entirely, sir.

Q. Or has he recommended it?

A. It has been left entirely to the superintendent and his taste, — good, if it is good; and poor, if it is poor. He has got four trees down there which, I think, ought to be taken down; they are around the Washington monument; I never thought much of them, and I hope he will decide to take them down some time or other.

Mr. Bryant. — Mr. Chairman, will you be so kind as to ask the chairman of the Committee on Common and Squares whether the discussion in the committee upon the vote which was read, and which, he says, was passed, contemplated at the time of the discussion any such extensive change in the condition of the hill as has since been made, or any such outlay as has resulted from that change?

Alderman Clark. — I should say it was not contemplated at that time to spend as much money as has been spent.

Mr. Bryant. — Will you further ask the chairman, sir, who is responsible, or who was the author of the plan that seems finally to have been adopted, and by which the contour of the hill has been very materially changed?

Q. (By the Chairman.) Who was the author of the plan, Mr. Chairman?

A. Well, judging from the good taste displayed there, I should have no doubt that Mr. Galvin was the author of it. I have no doubt about it in my own mind.

Q. It was approved by the committee?

A. Yes, sir. I have never heard any fault found with it. I think the committee are unanimously of the opinion that it was well laid out, and that the work has been well done.

Q. (By Mr. Bryant.) Whether that plan was ratified and sanctioned, as it went on, by the Chairman of the Committee on Common and Squares, or was Mr. Galvin instructed or authorized to proceed?

A. Mr. Galvin acted under the direction of the committee, according to that vote.

Q. (By the Chairman.) And the committee visited the work?

A. Well, if they did not, they did not do their duty. I did. I do not wish to presume that I did anything more than I ought to do; and I do not know that I did more than other members of the committee did.

Mr. BRYANT. — I wish to ask, Mr. Chairman, through you, if, after that instruction or vote, it became apparent that the expense was very largely exceeding what any member of the committee contemplated?

Alderman CLARK. — I do not hesitate to say that in all human probability, as I stated in the Board of Aldermen, the proper course to have taken would have been to have gone to the City Council and asked for the appropriation to do this grading before it was done; but when we had commenced to get the grounds in a safe condition, it would have caused a delay of a fortnight or three weeks before we could have got the appropriation, and I deemed it advisable to go on and complete the work and have it done. This delay would have cost the city at least a thousand dollars.

Mr. POTTER. — I should like to ask the gentleman whether he authorized the superintendent to expend this amount of money? I understood that he only had authority to expend five hundred dollars.

Alderman CLARK. — You have heard the vote read, Mr. Potter, and you are competent to judge.

Mr. POTTER. — I think, if that vote was the only authority, I should say there had been a larger amount expended than was authorized by that vote.

The CHAIRMAN. — The vote reads as follows, Mr. Potter: —

That the superintendent be authorized to have the necessary grading done near the grounds of the Army and Navy Monument.

Mr. POTTER. — Without limit?

The CHAIRMAN. — Without limit as to the expenditure.

Mr. POTTER. — I thought there was a limit.

The CHAIRMAN. — No, sir.

Mr. BRYANT. — I wish to ask —

Alderman CLARK. — Mr. Chairman, I wish you would allow Mr. Bryant to put his questions directly to me. We have known each other a good while, and I shall not take the slightest offence.

The CHAIRMAN. — Certainly he may, if there is no objection.

Alderman CLARK. — I think it will save time.

Mr. BRYANT. — I quite agree with the chairman of the Committee on Common and Squares, and as I wish to ask him some questions I will do so with your permission. The question I wish to ask is, whether this plan was, as I understood you to say just now, approved by the reporters, and whether it was the result of consultation between the reporters and yourself?

Alderman CLARK. — Oh, no, sir; the cutting down of the trees, Mr. Bryant, was simply approved by the reporters. I think the reporters will bear me out in that, sir.

Mr. BRYANT. — I am very glad, sir, that you have corrected me; I did not think the reporters were guilty of the bad taste that has been displayed there, for I thought they were better judges.

Alderman CLARK. — The reporters simply approved of the cutting down of two trees, Mr. Bryant. You know there is always a great deal of feeling about a tree. I think that was the ase when the Paddock elms were cut down three years ago.

Mr. Bryant. — You had reason to think so.

Alderman Clark. — I have never felt it very severely, but I know there were some gentlemen who were very strenuously opposed to the cutting down of these trees; and so, whenever a tree is obliged to be cut down on the Common, people object to having it cut. We did not wish to go and cut down two trees, and then have the entire press and community come down upon us for cutting down good, healthy trees; because these were healthy trees, and had it not been for the opinion of the sculptor and General Sargent, and gentlemen of taste and experience in horticulture and agriculture, etc., why, I do not know but we should have had a great deal of hostility exhibited against cutting down the trees as we did; therefore, I wished to have the opinion of the press and of as many citizens as possible, whether we should cut them down or not. Much to my pleasure, I think the entire press were in favor of their removal; and we removed two of them.

Mr Bryant. — Mr. Chairman, I was following the advice of the gentleman who spoke a short time since, in regard to putting questions, and I propose to ask no questions except those directly connected with the matter under consideration. The last question was, whether this change of form in the hill was made through the influence or upon the judgment of members of the press, and I find that their advice related to the cutting down of the trees. Now I would like to ask the chairman, whence arose the necessity for so extensive a change in the form of the hill, and the extensive grading, under a vote which contemplated, as he admits, an expenditure of only twenty-five hundred dollars at the most?

Alderman Clark. — Well, the good taste of the superintendent, and his earnest desire, as it always has been, to comply with the requirements of the citizens and have the Common and Public Garden kept in as good order and condition as it is possible; I presume that was the reason.

Mr. Bryant. — Now, Mr. Chairman, you desire to have these questions put direct, and I desire a direct answer, and must appeal to you.

Alderman Clark. — I presume that I am not obliged to answer. I do not remember now.

Mr. Bryant. — I presumed that would be the answer.

Alderman Clark. — I will answer all that I really can.

Mr. Thompson. — Then I understand Mr. Clark to say that Mr. Galvin is responsible for the expenditure of money larger than was authorized by the committee.

Alderman Clark. — Is he responsible?

Mr. Thompson. — I so understood you. The question was, who designed and brought about the change in the form of the hill which cost so large an expenditure of money; and your reply was, as I understood, the good taste of Mr. Galvin suggested and carried it out.

Alderman Clark. — I was asked who made the design, and I said I presumed the superintendent; he was at work there under that vote passed by the committee.

Mr. THOMPSON. — That brings me to the point of the "necessary grading." What did the committee themselves mean by "necessary grading"?

Alderman CLARK. — What did they mean? My own desire was to have the hill put in such condition as would be satisfactory to the people.

Q. (By Mr. THOMPSON.) And they intended to place it at the discretion of Mr. Galvin to spend from five thousand to fifteen thousand dollars in putting it in condition?

A. I refer you to the vote.

Mr. THOMPSON. — I am asking for the meaning of the word "necessary," which is the vital word in that vote; whether what the committee deemed necessary at that time was what he was authorized to do, or what they might afterwards deem necessary was what he was authorized to do, that is what we want to know; whether it was put into the hands of Mr. Galvin, or whether the committee had in their minds a model which they deemed necessary?

Alderman CLARK. — Well, I, as one of the members of the committee, was perfectly willing to allow the superintendent to do such grading as in his judgment was necessary to be done.

Q. (By Mr. THOMPSON.) So that it is entirely through Mr. Galvin's not deeming it necessary to spend fifteen thousand dollars instead of five that the city has got off so easily? He might have carried it down to Charles street?

A. Not at all.

Q. Well, I want to know; there must be a limit somewhere.

A. Well, when it is done and completed you will know exactly what it has cost. I do not think, up to the present time, there has been over five thousand dollars spent there, but that is simply an opinion; I do not know, because I have not figured up the number of loads of stone and material that have been put in there.

Mr. THOMPSON. — I understand the chairman that the committee did not contemplate the particular form in which the hill has been put; in fact they did not contemplate any form, but they left it to be put in such form as Mr. Galvin might design. I would like to know if that is the way the committee have generally allowed the superintendent to lay out grounds, — if they authorized this Mr. Galvin to go ahead and make such expenditure as would be necessary to put the hill in such a condition as would suit his taste.

Alderman CLARK. — You can draw your own inference.

Mr. THOMPSON. — I cannot.

Alderman CLARK. — Excuse me, but you will have to do it.

Mr. THOMPSON. — You can see that the word "necessary" is capable of one or two meanings.

Alderman CLARK. — You understand the meaning of the word "necessary" as well as I do.

Mr. THOMPSON. — The meaning of the word "necessary" is applied to something gone before, or something in a definition to be given by some person afterwards. It was either the necessary grading to be done at a day already present, or within the intention of another man's mind.

Alderman CLARK. — I hope you will get that all down, Mr. Reporter.

Mr. THOMPSON. — If it was already in the mind of Mr. Galvin, that is what I want to know. What is your answer?

Alderman CLARK. — If you will go back and repeat that I will answer.

Q. (By Alderman THOMPSON.) Did the committee, by using the word "necessary," intend that word "necessary" to imply some design which they had already formed?

A. No, hold on, let me answer it part at a time. No, sir, I do not think they did.

Q. Then did they intend to trust it to Mr. Galvin's discretion to say what the word "necessary" meant?

A. I presume they intended to leave it to Mr. Galvin's discretion to lay out the grounds in the best possible manner; I have no doubt of it at all.

Q. (By Mr. BRYANT.) As a matter of fact, Mr. Chairman, had the committee any idea that any material change was to be made in the form of the hill, or was it their idea that the hill was merely to be cleared up?

A. As one of the members of the committee, I had an idea that the form of the hill was going to be changed very materially.

Q. Did you state to co-members of the committee that that was the plan you intended he should carry out?

A. I think the committee all understood that the grade of the hill was to be entirely changed, and I presume the committee intended to go to the City Council before it was done.

Q. You thought it could be done for five hundred dollars?

A. No, sir, I beg your pardon; no member of the committee had an idea it could be done for five hundred dollars or a thousand dollars. I have stated that a member of the committee proposed to ask for an appropriation of twenty-five hundred dollars.

The CHAIRMAN. — Very distinctly.

Q. (By the CHAIRMAN.) I would ask the chairman of the committee if any citizen objected while this work was going on?

A. No, sir; but a great many gentlemen did express their approbation of the manner in which the work was going on; and a great many gentlemen have expressed their approbation of the manner in which the Public Garden has been kept this year. I have yet to hear the first gentleman find fault with the manner in which the Public Garden has been kept this year. I wish to state here that Mr. Samuel C. Cobb, ex-Mayor of Boston, who took such an interest in public affairs all through his administration, this year went abroad, and, on his return, called the superintendent to him and said that he had paid special attention to the public parks of Europe, and had seen no place during his entire travels that was more beautifully laid out or more beautifully kept than the Public Garden. I think very highly of Mr. Cobb, and I think very highly of his opinion, and I am exceedingly obliged to him for the compliment.

Q. (By Mr. FRENCH.) Does Mr. Clark consider Mr. Cobb a particular judge in these matters? Has he made any study of arboriculture?

A. I would refer you to his first inaugural as to what he thinks of parks, whether he believes in them, and whether he thinks we ought to have them. I have no doubt Mr. Cobb has had experience. He has a little place out of town; it is a small one, and he has a fine taste.

Q. Does Mr. Clark still insist that Mr. Sargent's opinion is of no account?

A. I do not know him.

Q. I understood Mr. Clark to say that he had yet to hear of any gentleman who could properly find fault with the arrangement of the Public Garden.

A. I said, expressed to me. I have heard of gentlemen who have found fault with it, but I mean to me personally. I do not mean that people who find fault are not gentlemen. I hope the reporters will get that correctly, because I do not mean to say that people who find fault are not gentlemen. I mean to say I have had no gentleman express his disapprobation to me personally; that is what I wish to be understood as saying.

Mr. FRENCH. — Mr. Clark has just mentioned Mr. Cobb's letter. Would you allow me to read from a gentleman whom I consider —

Alderman CLARK. — After I get through. I cannot stand this thing all night.

Mr. RUFFIN. — If he has a question —

The CHAIRMAN. — Go on, Mr. Clark.

Alderman CLARK. — I merely wish to state that a great many gentlemen, as I was saying, have expressed themselves highly gratified at the manner in which the Public Garden is kept. The Mayor of Baltimore took especial pains to call upon the superintendent and tell him that he should send his superintendent on from Baltimore to get some of his ideas in regard to laying out public parks. A gentleman came to me at my office, from Arkansas, who had taken occasion to go to the Public Garden, and requested an introduction to the superintendent, which I gave him. I think the superintendent has already sent him plants from his own greenhouse, not at the expense of the city, but at his own expense. It has been a theme of almost universal commendation during the past year. There has been some objection, I know, Mr. Chairman. Mr. Bowditch, a most worthy man, a resident of Brookline, has found fault with the manner in which Mr. Galvin has laid out the grounds in the Public Garden. But I believe that he will admit that it has been kept in good order; that for the manner in which it is laid out it is pretty well kept and very well taken care of.

Mr. POTTER. — Mr. Chairman, the gentleman has stated that a member of the committee proposed to ask for an appropriation of twenty-five hundred dollars. I would ask if that member of the committee did not withdraw the motion when he was persuaded it would not cost five hundred dollars to do this work?

Alderman CLARK. — No, sir, he withdrew it because he knew that probably we should have to ask for a larger amount; that is why he withdrew it.

Q. (By Mr. WILBUR.) Do I understand you to say that there

was no definite plan when the work around the monument was commenced, and that Mr. Galvin was authorized to clean up and do the necessary grading around the monument? After his commencing the work, did not the changes develop so that it was found necessary that the work should be more extensive than any one would at first imagine it would be?

A. I think I have so stated; that is a fact, however.

Q. Is it not a fact that the effect of changing the grading was that a great deal of expense was laid out in building the walks?

A. A very large expense was incurred in laying out the walks. The very best walks on the Common to-day, those most substantially built, are the walks around the monument. The only walks on the Common that will not wash out, unless they are covered with asphalt, are around the monument. I do not think these heavy showers — I have not been there to-day, but up to this morning none of the severe showers had made any impression upon the walks.

Q. Is it not a fact that in the hurry of grading there was no plan made, as you say, at first; and did it not develop itself as you progressed? Did not this expense increase more than you supposed at first that it would?

A. Well, the cost has been no more than I expected. It is simply this: we should undoubtedly have gone to the City Council and asked for a special appropriation to do this work before we did much of it.

Q. (By Mr. RUFFIN.) In your judgment did Mr. Galvin go beyond any authority which he had under that vote?

A. No, sir, he is no more responsible for it than the committee are.

Q. Did he betray any trust of the committee in making the improvements which he did?

A. Not the slightest; not the slightest.

Q. (By Mr. VOSE.) And the record, Mr. Clark, as read by the clerk, is, in your opinion, a correct one?

Mr. RUFFIN. — He has said that.

Alderman CLARK. — You mean the vote passed; yes, sir, that is correct.

Mr. VOSE. — Why I ask that is, that Mr. Howes seemed, in my judgment, to reflect upon the Assistant Clerk of Committees; and what I want to get at is, if you, as chairman of the Committee on Common and Squares, believe that the record kept by the Assistant Clerk of the doings of your committee is a correct record?

Alderman CLARK. — Perfectly, sir, in every respect, and the book is open to the investigation of the committee; and the records are always read if any member of the committee requests it. The records are not extensive. We had meetings frequently in the beginning of the season, — a good many meetings; but take for instance this time of year, almost the only meetings that are necessary are for the purpose of approving bills, and every bill has been approved by a quorum of the committee this year, — every bill that has been paid.

Q. (By the CHAIRMAN.) In putting so much work about the

monument, did the committee have any idea of making that spot more attractive than any other place on the Common?

A. Well, it was my intention certainly to make it a very attractive spot. It is a spot that has been visited by some four thousand or five thousand people a day since the celebration. We did propose to plant it with flowers, and make it a very attractive place.

Mr. THOMPSON. — I would like to ask Mr. Clark why, when he found the work was going to be larger or greater than he expected at the time the vote was passed, he did not deem it proper that the committee should be called together to consider the question?

Alderman CLARK. — I supposed the committee knew what work was being done there; and certainly, sir, all the members of the committee did besides myself.

Mr. THOMPSON. — Whether or not the committee acting officially simply at their meeting on the knowledge of the individual members should be considered sufficient?

Mr. RUFFIN. — Sufficient for what?

Mr. THOMPSON. — Sufficient to allow a change to be made in the expense.

Mr. RUFFIN, — That is, assuming that there was a change.

Q. (By the CHAIRMAN.) I would call the attention of the Alderman to the record. August 28th was the meeting at which the superintendent was authorized to have the necessary grading done. The next meeting of the committee appeared to be on the 5th of September. How much of that work was done between the 28th of August and the 5th of September?

A. Well, I could not say, Mr. Chairman. The men were at work there day and night.

Q. Because the committee visited the Common at that time for the purpose of inspection?

A. I should imagine that from the 28th of August to the 5th of September more than five hundred dollars had been spent.

Alderman VILES. — Does it say how many were present?

The CHAIRMAN. — All were present except Mr. Pope, and they visited the Common, and voted that the superintendent be directed to cut down two trees designated by the committee near the Army and Navy Monument; so they must have been on the spot.

Mr. THOMPSON. — I would like to ask whether any night-work had been done at that time?

Alderman CLARK. — I cannot answer that question, Mr. Chairman, for I do not know. I know there were a good many hands there, and prior to the 17th they did work there up to as late as twelve o'clock.

Mr. THOMPSON. — I would like to ask if the gentleman knows of his own knowledge that any great or material change in the form of the hill had been made at that date?

Alderman CLARK. — I have no dates fixed in my mind, Mr. Chairman; I think that there had been; yes, sir, I do not say that there had been changes made in the grade, but certainly there had been changes made in the paths; the paths had been changed and new ones commenced.

Mr. Bryant. — A single question, Mr. Chairman, with your permission.

The Chairman. — Certainly.

Mr. Bryant. — I understood the chairman to say just now, in response to a question by a member of the committee, that he did not consider that Mr. Galvin had exceeded his authority. Now, I would ask, setting, as the chairman did, Mr. Galvin's judgment as the limit, whether it was possible for him under any circumstances to exceed the authority conferred on him by that vote ?

Alderman Clark. — Oh, yes.

Mr. Bryant. — Then I should like to know where the chairman would draw the limit.

Alderman Clark. — Well, the chairman don't propose to draw the limit. Mr. Chairman, I wish to state there has been considerable said here about trees, and about the setting out of trees. Now, there have been set out between Clarendon street and West Chester park street extended, during the last few years, four hundred trees, and out of that entire four hundred trees there have been just twenty-nine that have not succeeded in growing. That is the evidence taken by a policeman, at my request, a short time since.

Q. (By Mr. Ruffin.) How many, Mr. Clark?

A. Four hundred were set out, and twenty-nine have died.

Mr. French. — I would like to ask Mr. Clark if he does not think the gases from the Roxbury Canal might equally affect the trees there as on East Chester park. I understand that is what killed the trees at East Chester park, and it seems to me they might be affected by the same gases in this locality.

Alderman Clark. — Well, I think that is a question which the gentleman who asks the question is just as good a judge of as I am. If he will go up there and stand fifteen minutes, he will be able to judge whether they could equally affect the trees in this locality. If they will, if I were in his place, I would spend the winter up in North Andover on my farm, instead of on Columbus avenue.

The Chairman. — Are there any other questions to be asked Mr. Clark?

Mr. Ruffin. — I guess that is all.

Alderman Clark. — I should be very happy, Mr. Chairman, to answer any questions that might be asked me.

Statement of Alderman Robinson.

Q. (By the Chairman.) You are a member of the Committee on Common and Squares?

A. Yes, sir.

Q. What information can you give the committee in regard to this matter?

I cannot give you the most remote, sir. By the kindness of the chairman of the committee and the other members of it, knowing that I was very much pressed on other committees on which I

was serving in the City Government, they kindly consented to do the work, and most of the time I was occupied with the Committee on Police in an adjoining room, when they were in session in the little room by the side of the large committee room. On important votes, as far as possible the chairman sent in for me, and gave me a little cursory glance of the matter, and I voted with the committee; but what votes I passed upon and what meetings of the committee I attended, I have not now any distinct recollection. I feel very grateful to the members and the chairman of the committee, and I wish to thank them in a public manner, for the kindness with which they have treated me in relieving me of the responsibility of being with this committee when I have had so much to do on other committees.

Q. Do you remember the vote passed August 28?

Voted, That the superintendent be authorized to have the necessary grading done on the grounds near the Army and Navy Monument on the Common.

A. I do not, sir; the only time I met with the committee was in the spring of the year, when a meeting was held in regard to rhododendrons. I went up on the Common one day when it became necessary to cut down the trees. I was very loth to consent, but I drew a long breath and consented that two trees, as far as my influence in the Committee on Common and Squares was concerned, should come down. I was very sorry, indeed, but I thought it was necessary, and the rest of the committee thought it was necessary, that these two trees should come down, and I gave my consent as a member of the committee. The next time I was there was when they tried the illuminations, and the next time was when the celebration took place, on the 17th of September. In the first part of the year we met to talk over the subject of introducing rhododendrons. We thought, under the circumstances, it was best to introduce a new flower on the Common, and I voted for that. In whatever the Committee on Common and Squares may have done I bear my part of the responsibility. I feel that I should be grateful to them for having relieved me of a large portion of the care that belonged to me, but which I was not able to attend to. As for the Public Garden, I do not care what any living man says, — I have seen places in all parts of the world, everywhere, and I say, and I will challenge any one to dispute the fact with satisfactory evidence, that there is no prettier spot on the face of the earth than that Public Garden. We differ sometimes, as I have heard while sitting outside and listening; I have heard some little remarks in regard to a difference of opinion from this man and that man. We do not take the same view about a lady; if we did, we should all be after the same person. We do not take the same view of a horse, a house, or any public building. Each and all of us have some degree of taste, and there is as much diversity of taste in regard to public grounds as there is in regard to horses, public buildings, houses, or anything else you may please to mention.

Q. (By Mr. RUFFIN.) Have you seen the public grounds of Paris, of London, and of Vienna?

A. I have, sir, and of almost every city of Europe that you can

think of. I have wandered through them and spent a great deal of time in them.

Q. How does the Public Garden compare with them?

A. Well, sir, it is not quite so extensive; but, in point of beauty, I do not know; there are perhaps some things I should not do in exactly the same way, but it is a mere matter of opinion. Taking the thing together it is satisfactory, and should be satisfactory, to anybody in any part of the world.

Q. Well, in the Public Garden we do not have such rare and expensive flowers?

A. No, sir, not in the Public Garden, but you will find them in some places. I do not know a Public Garden where there are so pretty flowers as there are there. I have seen some private grounds that were perhaps equal to it.

Mr. Bryant. — May I ask you, through the chairman —

Alderman Robinson. — Will Mr. Bryant be so kind as to put his questions to me direct? I know Mr. Bryant very well.

Mr. Bryant. — It will be much more pleasant to me, sir.

Q. (By Mr. Bryant.) Will you be so kind as to tell us how it happens that a vote is necessary from the Committee on Common and Squares, and long breaths from sensitive members, with which I entirely sympathize, to authorize the superintendent to cut down a couple of trees up near the monument, while the same superintendent may, at about the same time, cut down trees on the Tremont-street mall without any vote whatever?

A. Well, I should be very glad to tell you, but I know nothing more about it, sir, than nothing at all.

Q. I do not care about that; I want to know how the same man can take his axe and cut down a tree on the Tremont-street mall, while it requires a vote to cut one down near the monument?

A. I would be glad to answer if I could. All I speak of are these two trees. I drew a long breath, and with a silent prayer I voted with the other members of the committee that those two trees should be cut down.

Mr. Bryant. — Perhaps you will like to have me add, as no gentlemen has been here to protest against it, that this last year I happened to be in Vermont on business, and I received a letter from my office here, from a gentleman well known, begging me, on the supposition I was in Boston, and knowing that I had some interest in trees, to interpose in behalf of these trees he thought were in danger, and also in behalf of the changes that he thought would prove so detrimental to the form of the lot on which the monument was to be placed. I shall be very happy to report to him that there was one member of the committee who did his duty, with a long breath.

Alderman Robinson. — With all due respect, Mr. Bryant, one of the gentlemen that used to take a little more prominent part in the Committee on Common and Squares, when we wished to put the building up, — I allude to Mr. Whitmore — Said I, "Mr. Whitmore, we were obliged to cut down two trees." "Well," said he, "it is all right this time."

Mr. Bryant. — He is not the gentleman to whom I refer.

The CHAIRMAN. — Do the members of the committee desire to ask Alderman Robinson any questions?

Mr. BURKE. — Mr. Chairman, I think, in relation to the trees now mentioned, that the committee understood that, when live trees were to be cut down, it was necessary to have a vote of the committee; but when trees were supposed to be dead the superintendent was instructed to cut them down, using his own judgment in that matter.

Alderman CLARK. — I would like to state, what Alderman Robinson does not know, that there has never been a live tree cut down without a vote of the committee; but it is supposed that the superintendent sufficiently understands his business to trim trees and to cut down trees when they are dead. If he is not competent to attend to these duties he ought not to hold the position that he does. And I wish, furthermore, to call the superintendent's attention now to a tree standing on Tremont-street mall, which appears to be dead, and has one single branch and the stem left. I do not know that it is unsound; it may leaf out next spring possibly, and, if it does, it will undoubtedly remain. I am as strenuous in advocating the preservation of the trees as any live man since it was decided not to widen Tremont street by taking a piece of the Common; ever since then I have done my best to preserve and protect them.

Alderman ROBINSON. — Is that all, Mr. Chairman?

The CHAIRMAN. — That is all. I think all the members of the committee who are present have been examined. Mr. Dee and Mr. Hiscock have been here, but both have gone away. We will now hear the superintendent.

STATEMENT OF JOHN GALVIN.

Q. (By the CHAIRMAN.) You know the way in which we are proceeding, Mr. Galvin?

A. I do, sir.

Q. What information can you give the committee about rhododendrons, for instance, in the first place?

A. I cannot give you much more than what you have heard here this evening. Any questions put to me I will endeavor to answer.

Q. Are you acquainted with Mr. Kelsey?

A. I am, sir.

Q. Do you consider him a reliable and responsible man?

A. I gave the committee my opinion of him, sir, and I guess some of them can remember it pretty well. I believe I told one member, — I do not know whether it was the chairman or not, — that he was a little too persistent and I did not care much about dealing with him. I told them if they wanted to import rhododendrons they could import them just as cheap or cheaper than Mr. Kelsey could import them; I think I told that to some members of the committee. Do you recollect any conversation like that, Mr. Chairman?

Alderman Clark. — I beg your pardon, I was not listening.

Mr. Galvin. — I say I recommended the committee to import rhododendrons themselves, instead of through Mr. Kelsey.

Alderman Clark. — I bear testimony to that; he did say that.

Mr. Galvin. — I did have a little dealing with Mr. Kelsey with regard to forest trees, and I did not consider that he treated me exactly right.

Q. In relation to the grading on the Common or around the monument.

Mr. French. — Is it in order to ask questions on these different points as you go on, or shall I ask them after you get through?

The Chairman. — Certainly, go on.

Mr. French. — I would ask Mr. Galvin, through you, Mr. Chairman, if the committee, or the sub-committee, — I understand there was a sub-committee appointed on rhododendrons who made this purchase of Mr. Kelsey, — did that committee consult with Mr. Galvin in regard to the price of the plants?

Mr. Galvin. — The price was thoroughly understood from the first, sir; it was to be one dollar and fifty cents each.

Q. (By Mr. French.) Did Mr. Galvin think that was a fair price for plants delivered here?

A. I did not say anything about it.

Q. I say, did you at that time? Did not the committee consult you at that time as to the value of the plants? Then, if they consulted you about the price, I suppose they must have got some ideas. Did they not ask you whether it was a fair price? I understand that was the price he fixed.

A. A dollar and a half was the price he fixed.

Q. Well, did the sub-committee fix that price for the sub-committee?

A. Mr. Kelsey fixed that price for the committee.

Q. Did not the committee say something about the price?

A. It takes two to make a bargain, you know.

Mr. French. — Mr. Chairman, my question is not answered. I ask whether the committee, after consultation with Mr. Galvin, then made a bargain with Mr. Kelsey, and I want an answer.

Q. (By the Chairman.) Mr. French desires to know from you if the sub-committee consulted you in regard to the price of rhododendrons. I will read the record, and perhaps it will refresh your memory. [Reads.]

Alderman Slade and Messrs. Dee and Hiscock reported that they had conferred with Mr. Kelsey on the subject of purchasing rhododendrons for the public grounds. They recommended that five hundred rhododendrons and one hundred azalias be purchased at one dollar and fifty cents each.

Did they consult you about the price?

A. Well, all that was extra, and I considered them an improvement to the grounds. They came to me about the price, and I thought they could get plants worth it. I thought if they got plants with five or six buds on them it was not an out-of-the-way price here in Boston.

Q. (By Mr. French.) Then you advised the committee that you thought it was a fair price?

A. I did not advise. I gave them my opinion, and they were able to act for themselves.

Q. That is what I mean. You gave them your opinion that that was a fair price. At that time had you been acquainted at all with the importation of rhododendrons? Had you ever imported them yourself?

A. Yes, sir.

Q. From Mr. Waterer?

A. Does that make any difference?

Q. Well, I merely asked you.

A. I have imported them from the other side.

Q. I simply ask the question.

A. I have imported them from the other side.

Q. Does Mr. Galvin know whether this committee, after consultation with him, consulted the catalogues, or did Mr. Galvin at that time know anything about the catalogue price?

A. I think so.

Q. Did you consult at that time Mr. Waterer's catalogue?

A. I did not.

Q. Do you know whether the committee did?

A. I do not; I did not ask them.

Mr. FRENCH. — What I wanted to say on that point was with regard to the price; if you will allow me, I was unfortunate at the last meeting in having left Mr. Waterer's catalogue at home. Some of the committee doubted whether the plants could be laid down here at not over eighty cents each, as I stated. Various evidences here approved, Mr. Harris, and others. On reference to the catalogue I find that appears distinctly laid down and printed in accordance with what I said at that time. It seems to me that if the committee or Mr. Galvin had taken the pains to examine they could have found at what price they could purchase. I quote from the catalogue, which says in regard to hardy rhododendrons: —

> Plants that are supposed to be hardy, plants that are bushy, and half a foot to two feet and a half high, for the most part well budded, will be supplied at from five pounds to ten pounds per hundred, costing duty and freight paid about ten to fifteen pounds per hundred.

Then he mentions twenty-seven varieties under that class which he says are hardy here. Then another class, all of which probably are not hardy here, but some of which are.

Mr. RUFFIN. — If Mr. Galvin's examination is going on let us proceed with that, and Mr. French will have an opportunity afterwards.

The CHAIRMAN. — It is rather out of order.

Mr. FRENCH. — I asked your permission or I would not have gone on. I wanted to name these prices in connection with this matter which came before us. There is one other question I would like to ask.

The CHAIRMAN. — Certainly.

Q. (By Mr. FRENCH.) In regard to this Mr. Kelsey, who furnished rhododendrons and azalias at the same price, — I would like to know whether there were any other things bought of Mr. Kelsey at the same time?

A. There were.

Q. Will Mr. Galvin state what?

A. Some elm-trees.

Q. What price did you pay for elm-trees, do you know?

A. I cannot carry it in my mind so long; about a dollar, or a dollar and a half.

Q. Can you state how many?

A. About fifty, I think.

Mr. FRENCH. — Well, I notice, in regard to Mr. Kelsey, that the price of boxing is added. As I understood from Mr. Galvin and some members of the committee, the price was a dollar and a half; and Mr. Kelsey has added likewise eight boxes, which amount to some twenty-eight dollars and fifty cents; so that actually the rhododendrons cost the city about one dollar and fifty-four cents each, instead of one dollar and fifty cents each.

Mr. GALVIN. — It is customary to charge for boxing on the other side, Mr. French, and I guess you will find it so if you are an importer; but I guess you have not been into it very extensively.

Mr. FRENCH. — Not at the price laid down here, freight paid and everything.

Mr. GALVIN. — Then they treat you differently from other parties. You are a favorite, I must say.

Q. (By the CHAIRMAN.) In relation to rhododendrons what was the nursery price here?

JOHN M. GALVIN. — Mr. Chairman, I think I would like to ask one question in regard to this rhododendron matter, and the evidence that has been introduced here in regard to it. I think it was intimated that the rhododendrons were purchased for the City of Boston, and that this man who sold them guaranteed that they were hardy. I think that is a very important point in connection with this matter. If that is the case, as has been intimated, then it is a question whether, if they do live, the city has paid too much for them. As everybody knows, there is a great diversity of opinion as to whether they are hardy or not. If Mr. Kelsey has sold these rhododendrons to the City of Boston as good rhododendrons, that will live in the Public Garden all winter, and if they do not do so has agreed to replace them, then I think the City of Boston has purchased the rhododendrons at a reasonable price. The question is, Mr. Chairman, whether these rhododendrons were guaranteed.

Mr. FRENCH. — I understood from Mr. Galvin that these rhododendrons were guaranteed for the year. I would like to ask whether that is so, whether he understood it so.

Superintendent GALVIN. — That was the understanding from Mr. Kelsey.

Q. (By the CHAIRMAN.) Are you fully posted up in relation to the proceedings and manner of the purchase made by this subcommittee? Was it partly in your hands?

A. No, sir.

Q. Or was it exclusively in your hands?

A. No, sir. I considered it out of my hands altogether as soon as the committee was appointed.

Q. I will read the record of the Committee on Common and Squares, and perhaps it will afford some information. This vote was recommended by Messrs. Slade, Dee, and Hiscock: —

Voted, To purchase of Mr. Kelsey five hundred rhododendrons and one hundred azalias, at one dollar and fifty cents each.

That was entirely distinct from any action on your part?

A. Yes, sir; it took it out of my hands completely, as I considered.

Mr. FRENCH. — Where was the vote with regard to elms?

Mr. GALVIN. — There was no vote. I will answer you that, if you will allow me. We have to pick up elm-trees and maple-trees and all kinds of forest trees wherever we can get them. If you are in search of forest trees, you will find it pretty difficult to get forest trees in Boston always. I don't know whether you find it so or not; but, if you have not, you are very fortunate. I would like now to get some good forest trees two or three inches in diameter.

Mr. FRENCH. — Then I understand Mr. Kelsey guaranteed these rhododendrons until next spring. I think the committee will find that if Mr. Kelsey's guaranty is good for anything, they will have to call upon him to make good his guaranty. Mr. Galvin, Jr., has said if they are all hardy they are cheap enough. I am willing to say that some of these plants are not hardy. I have it upon pretty good authority that some of the plants there are not hardy.

Mr. RUFFIN. — That is a matter of argument.

Mr. FRENCH. — I beg your pardon. I was only replying to Mr. Galvin. I brought no matter up.

Q. (By Mr. THOMPSON.) I would like to ask if any guaranty was given in writing?

A. No, sir; there was not.

Q. And if he is responsible?

A. I think that was left in the hands of the sub-committee.

The CHAIRMAN. — I think Mr. Galvin has stated —

Mr. THOMPSON. — I am not asking whether he is to blame, but whether there was a guaranty.

Mr. GALVIN. — Not that I have seen. I did not consider that I had anything to do with the purchase.

Q. (By Mr. THOMPSON.) Then I merely ask, as another fact, if you know Mr. Kelsey, and whether, in case it became necessary to collect four hundred or five hundred dollars from him for the plants, it can be done.

A. Mr. Kelsey is a very responsible man to all appearances, as far as I know.

Q. Does he reside in the city?

A. No, sir; he spends a portion of his time here. He is a travelling agent for several nurseries in the United States.

Q. (By Alderman VILES.) Do you think Mr. Kelsey got the best of the bargain when the committee purchased these plants?

A. Well, I suppose he could not lose anything by it. He was acting as an agent for another party. I suppose he would not work without getting some pay; that was my impression when

the purchase was made. At that time I mentioned that we could get these plants as cheap as he could, and more particularly as they were to be ordered for the City of Boston I thought we might possibly do much better.

Alderman VILES. — There seems to be a great difference in the price, according to the experts.

Q. (By the CHAIRMAN.) What is the price of rhododendrons among our nursery men in Boston? At what price are they sold?

A. You could not send an order for a hundred to any man around Boston. Mr. Hovey's man is here, but if I wanted one hundred rhododendrons I would get them from the other side; I would not think of buying them in Boston. I might go to Mr. Parsons, in New York, where you will pay at least what we paid for those in the Public Garden. It is a well-established fact that there is no man in this vicinity who makes a business of growing rhododendrons for the market.

The CHAIRMAN. — Do the committee desire to ask Mr. Galvin any questions?

Mr. FRENCH. — I would like to ask if Mr. Galvin can state with regard to the plants bedded in the Public Garden? I asked that question at the last meeting in regard to the number of plants he had bedded out there, and I understood him to say thirty or forty thousand. I was referred to the auditor's department, but I have not time to look in there. I notice, in the report of the Committee on Common and Squares to the Common Council, that they give an item for trees and plants, without stating the number of trees and plants. It makes a very serious difference in regard to the price of things when you know the number of things bought; and I would like to ask the chairman, if it is in order, whether Mr. Galvin will state how many plants have been planted out there in the Garden, — bedded out?

The CHAIRMAN. — Can Mr. Galvin give an answer?

Mr. GALVIN. — If Mr. French had taken sufficient pains to go to the auditor's office, I do not think Mr. Turner would refuse to show him the bills which give the items of every tree and plant, and of every variety of plant, and the price attached to each variety. I cannot carry it in my head, but there are more than forty thousand there, — I will guarantee that.

The CHAIRMAN. — The gentleman has been asking questions about the American elms. I have the auditor's book immediately before me, with all the bills recorded therein. [Reads.]

Fifty American elms, extra, one dollar and twenty-five cents each.

That was paid to Fred W. Kelsey. That was the price paid for American elms.

Mr. FRENCH. — I knew that was the price. Does that appear on the books of the committee?

The CHAIRMAN. — That appears on the auditor's book. This is the auditor's book that I hold in my hand.

Mr. GALVIN. — No, sir; I will answer that question. It does not appear on the books of the committee. This was paid personally by myself.

Mr. FRENCH. — Then the superintendent has authority to buy plants and shrubs without consultation with the committee?

Mr. GALVIN. — What do you mean?

Mr. FRENCH. — I say the superintendent, then, has authority to purchase trees for the Garden without consultation with the committee.

Mr. GALVIN. — If the superintendent sees an opportunity to get good trees, the committee never deprive him of the privilege of getting them; but where a large quantity of plants are wanted for the Public Garden, there is always a sub-committee appointed. Last year, if you recollect, they advertised for plants. They received proposals from New York and from florists around Boston. Mr. Smith could furnish one hundred, Mr. Brown five hundred, and Mr. Jones a thousand; and Tom, Dick, and Harry could furnish the balance. Now I would like to know of any gentleman who takes pride in decorating public grounds, in what condition you would have your Public Garden if you rely upon all of these gentlemen to furnish the plants? You must have your plants as nearly as possible of one size in order to have your ribbon-work look well, otherwise you would not be successful.

Mr. FRENCH. — You can cut them down.

Mr. GALVIN. — What say? What can you cut down?

Mr. FRENCH. — You can cut them down.

Mr. GALVIN. — I ask you what I can cut down?

Mr. FRENCH. — I beg your pardon.

Mr. THOMPSON. — I would like to ask Mr. Galvin whether the proper time to advertise would not be in the fall, and not in the spring? Whether, if he gave notice that the City of Boston would apply in the spring for such a number of plants that might be wanted, the probability would not be that in the spring he would find men who would be ready to supply him with the number named?

The CHAIRMAN. — Will you answer that question?

Mr. GALVIN. — It is not my place to do any such thing; it is in the hands of the committee.

Mr. THOMPSON. — I would like to ask if it is not his place to make the recommendation?

Mr. GALVIN. — I have recommended the city, and it was through my means that the greenhouse was pulled down before it fell down. I recommended the pulling down of that greenhouse before it fell, thinking that at some future day the city might feel rich enough to put up a good, decent house, and have it a kind of centre for people visiting the city. My idea was that it should contain nothing but choice plants, and that there should be small houses around it, where you could raise your summer plants for bedding. It would not cost any more for bedding, and the first outlay is all it will cost. I have recommended that year after year while I have been superintendent, and that is my idea now. No superintendent can depend on these different florists to furnish plants; it cannot be done.

Mr. BRYANT. — Will Mr. Galvin be kind enough to tell us how he has surmounted that difficulty?

Mr. Galvin. — What did you say?

Mr. Bryant. — How have you got along with that difficulty? You say that one gardener can furnish one hundred, another five hundred, another a thousand, and Tom, Dick, and Harry can furnish the rest. How have you met the difficulty, if I may be allowed to put the question direct? You have got a good supply on the Public Garden; how have you got them?

Mr. Galvin. — You must ask the sub-committee.

Mr. Bryant. — I ask you.

Mr. Galvin. — I did not buy them.

Mr. Burke. — Mr. Chairman, I think we are wandering from the question involved in the order just read here. It seems to me we are investigating the committee, according to the order which has been passed by both branches of the City Council.

Q. (By Mr. Ruffin.) To go to another topic; have you any head-men, or bosses, in your employ?

A. Yes, sir; during the summer.

Q. How many have you had?

A. Well, the men that I have had have been selected from the workmen. I pick out the good men.

Q. Take it in your busy season, how many superintendents do you have?

A. Eight or ten; but most of them receive only the same pay as the laboring men. I have picked one man from the gang and held him responsible.

Q. How many places do you look after?

A. In the first place we look after the Common; from there to the Public Garden; from there to Commonwealth avenue, which is little over a mile in length; from there to Chester square; thence to Madison square; from there to Washington park, and from there to Monument square, at West Roxbury. On our return we come to Orchard park. Again we go to Charlestown, — there are three or four there; to East Boston, — there are three or four there; to Independence square, Telegraph Hill, in South Boston, and Meeting-House Hill, in Dorchester. Beside that we take care of the street trees in the city proper and in the territory that has been annexed to the city.

Q. I suppose you find it necessary to hire more help at certain seasons of the year than at other times?

A. Yes, sir.

Q. In your busiest season how many men are necessary to keep the public grounds in proper condition?

A. It depends upon the season. If it is wet, it will take more than in an ordinary dry season.

Q. Why?

A. In the first place our grounds are composed of a great deal of grass, and we calculate in a wet season to mow it once a week regularly. There is between a hundred and fifteen and a hundred and eighteen acres altogether, and this is mowed regularly once a week.

Q. How long would it average in a season?

A. The mowing?

Q. Yes.

A. We commence some seasons in April, and continue until the middle of September.

Q. During the last year what is the largest number of men you have had in your employ?

A. We might have exceeded one hundred and forty-five at one time. I tried not to exceed that number, but I think it may have exceeded it. It will not average that, probably, during the season.

Q. What is the largest number of men you have employed?

A. Probably one hundred and fifty or one hundred and sixty. I do not think it was more than that.

Q. Did your work require that number of men?

A. Yes, sir. As many of you are aware, some people are under the impression that there is no such place in the City of Boston as Commonwealth avenue. That avenue has probably cost the city one hundred thousand dollars. Since we commenced at Arlington street we have done a section or two of it every year. This expense is looked upon as belonging to the Common and Public Garden, and the whole expense goes into that.

Q. What is your system of hiring men?

A. My system of hiring men, sir, this season has been a pretty hard case, — I will say that. It went with me so hard one day this season, that I was going to come down and resign my position.

Q. (By the CHAIRMAN.) Why?

A. There were so many vagrants I could not hire, and so many suffering for bread. Gentlemen in the Board of Aldermen and Common Council used to send men to get work in our department. If I had a chance to put on these men, I did it, — keeping within the limit, of course, — but if I had not, I did not hire them. Under all the circumstances, the men were as good as we could expect. Our department does not employ men regularly, and therefore you cannot get the best labor in it. Mr. Harris and Mr. Forristall employ their men all through the season, and the consequence is, that they get good, able-bodied men. There have been men sent to our department, — I could not find fault with their work, — who were not accustomed to working. Where I found a poor man I would take away his tools, and send him away, and tell him I would not have people looking at him and bring odium upon me by his working in the department. But I have had very few cases of that kind; the men did as well as they could be expected to do under ordinary circumstances.

Q. You mean to say you took your laborers on the recommendation of persons connected with the City Government?

A. And none others.

Q. Suppose they were recommended, and proved to be unworthy or incapable?

A. How was I to know without giving them a trial?

Q. Suppose you gave them a trial?

A. Then I discharged them immediately.

Q. Have you ever discharged any?

A. Yes, sir; I discharged a man that Mr. Ruffin sent me one morning.

Mr. Ruffin. — I do not doubt it in the least.

Mr. Galvin. — I will tell you the reason. He was a good man, and I had no fault to find with his work. I went down on the avenue, and had fifty or sixty men at work. The morning was not cold, and I gave strict orders that no man should wear his coat. I found him wearing his coat, and I sent him away.

Mr. Ruffin. — I remember the circumstances.

Mr. Galvin. — In all cases where a man was not doing right I discharged him; it did not make any difference who sent him.

Q. Did you pay these men that you employed a higher price than Mr. Hunnewell paid other gardeners, or other gentlemen who have large places?

A. No, sir; I did not.

Q. Who fixed the rate of wages?

A. The City Council; I suppose their laborers get a dollar and seventy-five cents a day.

Q. It was not fixed by you?

A. No, sir; it was not.

Q. Nor by the committee?

A. No, sir, — by the City Council.

The Chairman. — I see here, Mr. Galvin, the following: —

Voted, That the pay of the men in the Department of the Common and squares, with the exception of the skilled and experienced men, be fixed at the rate of one dollar and fifty cents each per day.

That is under date of October 30.

Mr. Galvin. — Yes, sir.

The Chairman. — That motion appears to have been reconsidered.

Q. (By Mr. Ruffin.) How many men do you find it necessary to employ in the winter?

A. About twenty, sir.

Q. Is that your average number?

A. Last winter we employed more, on account of having so much snow. My committee authorized me to allow Mr. Harris and the Metropolitan Railroad Company to cart snow upon the Common; and in order to get rid of it in season we had to pick it over, so it would thaw and leave the ground clear. If they have that privilege this year, they will have to clear away the snow.

Q. The men who are recommended to you by members of the City Government, do you put them on all kinds of work which you have?

A. No, sir; I have to select the best men for the fine work in the Garden, of course.

Q. Suppose you have a job of pruning to do?

A. The pruning is done by three or four experienced men, whom we have had for three or four years. Nobody else does pruning.

Q. Do you employ these men all the season?

A. Yes, sir; there is always enough for them to do. There are always dead limbs to be sawed off. We must have careful men. There are trees and limbs hanging over houses and build-

ings, and you have got to have careful men do the work. I do not know that they have met with an accident in all the time I have employed them.

Q. This class of men recommended to you, provided they are robust and strong, can they do the work?

A. Yes, sir; they can do the work as well as anybody.

Q. It is ordinary laboring work?

A. It is ordinary laboring work except the Garden.

Q. Using the pickaxe, the hoe, and the shovel?

A. Using the pickaxe, the hoe, the spade, the shovel, and the rake.

Q. (By Mr. WILBUR.) Do you have foremen and time-keepers?

A. Yes, sir.

Q. What is your system of keeping time?

A. The roll is called every morning, in the middle of the day, and at six o'clock in the evening, when we have as many men as we have had during the summer.

Q. Do you keep a regular set of books in your department?

A. Yes, sir.

Q. And a record of all the men you hire?

A. That is marked down in a day-book which contains the names of the men and what they are doing every day, and from which we make up the pay-roll when the time comes round.

Q. Do you let out any position of the public grounds to be taken care of? Do you have anything to do with that, or is it left to the committee?

A. The committee let it out, sir.

Q. By contract?

A. By contract.

Q. Do you find any difficulty in having these grounds kept up equal with the others?

A. They are kept up tolerably well, sir. Blackstone, Franklin, and Worcester squares, Union park and Lowell square, which are let out for fifteen hundred dollars a year, I think.

Q. Does the man who gets that contract have to do all the labor and furnish all the plants for these squares?

The CHAIRMAN. — I will read the vote of April 26: —

Voted, To authorize the chairman to contract with John Reardon for the care of Blackstone, Franklin, and Worcester and Lowell squares, and Union park, at an expense not exceeding one thousand five hundred dollars; also with Peter Calahan for the care of the squares and trees in East Boston, at an expense not exceeding nine hundred dollars.

That appears to be the vote of the committee recorded April 26.

Q. (By Mr. RUFFIN.) Just one matter more, Mr. Galvin. You have had charge of these men who have been in the city's employ. Have you ever known of an instance in which any of the city laborers have done private work for any member of the City Government?

A. Not to my knowledge, sir.

Q. For any Alderman or member of the Common Council?

A. Not to my knowledge, sir.

Q. Would you know?

A. There might be a man away from one hundred and fifty men, and I might not know it; but no man can say that I have sent a man out to do a job since I have been connected with the city.

Q. Do you have sufficient oversight and knowledge of the conduct of your men, and the labor and whereabouts of your men, to say whether they have or have not?

A. Well, sir, every day I am around with my men. I drive around regularly and see all my men at work, and there is no man who does outside work, to my knowledge.

Mr. FRENCH. — Mr. Chairman, I would like to ask Mr. Galvin a question. He spoke a few moments ago of the expense of laying out Commonwealth avenue. I would like to ask who furnished the loam that you have had during this last grading that has been going on?

Mr. GALVIN. — Mr. Coyle and Mr. Nawn furnished some.

Q. (By Mr. FRENCH.) May I ask, in regard to this Mr. Nawn, of East Boston, whether the loam used around the monument is a part of the loam which might otherwise be named under the title of street-sweepings, given by the Health Department to him, and then sold by him to the city?

A. I do not know who gives it, sir. You may consider it street-sweepings, but I consider it manure. If you get so much loam mixed in with the street-sweepings, I consider it better than ordinary loam and call it good manure.

Mr. FRENCH. — The point I want to make, Mr. Chairman, is this: we find that around Monument Hill Mr. Nawn carted loam there which was street-sweepings which had been given to him by the city and then sold to the city. We find the same thing going on, on Commonwealth avenue, though Mr. Galvin says he does not know whether the street-sweepings were a present of the city or whether Mr. Nawn bought them; but we presume the same thing went on there as went on around the monument.

Mr. RUFFIN. — Mr. Chairman, I object to this.

Q. (By the CHAIRMAN.) Is Mr. Galvin aware of any street-sweepings being deposited on Commonwealth avenue?

A. At what time?

Q. At any time within a year.

A. Yes, sir.

Q. But it has come there in the shape of loam?

A. It has answered the purpose of loam, and, I think, a better purpose. If you get loam from these poor pastures, we have to get manure to mix with it; but the street-sweepings, after a year or two, are the best loam you can get, because it is rotten, and you can handle it. It makes as good soil as can be made; that is my experience.

Mr. FRENCH. — I only wanted to know where it came from.

Mr. GALVIN. — I never asked. I did not care if they had stole it, as far as I was concerned.

Q. (By Mr. THOMPSON.) On the question of the employment of men, Mr. Galvin stated that he did not employ at any time more than one hundred and fifty or a hundred and sixty men. I would like to ask whether men are paid for Sundays, or whether they are employed only during week-days?

A. The pay-roll will tell that, I suppose.

Q. I do not mean that. Do you employ men on Sundays?

A. In the winter season I do.

Q. But you do not in the summer time?

A. No, sir.

Q. Then you think you have not employed more than one hundred and fifty men or one hundred and sixty men at a time?

A. I may have employed more for a certain time.

Q. For a month at a time?

A. It might have been for a month at a time.

Q. For two months at a time?

A. The pay-roll will tell.

Alderman CLARK. — I submit that the committee can get all the information that they desire from the pay-rolls at the auditor's office.

Mr. THOMPSON. — I have been through it, and I know what the facts are.

Alderman CLARK. — We know that you have been through it, and that you have the figures there.

Q. (By Mr. THOMPSON.) Now I am going to ask Mr. Galvin, in all fairness and candor, whether he does not consider the present system of employing exceedingly expensive and bad for the city to pursue, and whether he does not himself believe that if he was allowed to employ men without having any pressure from outside, he could do the work of the city a great deal cheaper than it is being done now?

A. Yes, sir.

Q. I would like to ask whether he does not believe that the interests of the Common and squares would be improved if they were put in the hands of a permanent commission, having a competent superintendent under them, rather than in the hands of conflicting and shifting committees who come in from year to year without any previous experience?

A. I do not know about that, sir. That is a question to be solved hereafter.

Q. That is a question that applies to your experience.

A. I have no experience in that line, sir.

Q. (By the CHAIRMAN.) I would ask Mr. Galvin if, under a competent superintendent, a man that knew his business and was determined to carry it out in all its details, the work could be better done than under a commission of any number of men?

A. I do not see of what use a commission is. The superintendent has got to do it; the commission will sit in their office, and the superintendent has got to do the work the same as he does now, hasn't he?

Q. (By Mr. THOMPSON.) I suppose a commission would be equally as good as a committee, and the only question is —

A. I do not know; there are some members of the committee around on my work every day; I know that.

Q. Well, would it not be equal to good members of a committee?

A. I am not fit to decide.

Q. (By Mr. RUFFIN.) I will ask this question, — Is the committee man of long experience as a committee man of any assistance to you? Is he of more assistance to you than a new man who has come recently into the Common Council or the Board of Aldermen?

A. Yes, sir; I consider him so, a good deal more.

Q. Then I understand you to say that years and experience do increase the value of a committee man?

A. They do, sir; and it is so with laboring men; if you shift your men every week you cannot perform the same amount of labor with the same number, — it is impossible.

Q. (By Mr. WILBUR.) Mr. Galvin would you not prefer to have your committee the same, year after year, rather than change and have new members added every year?

A. I don't know, sir; sometimes you would find a very crooked one, and would want to get rid of him.

Mr. THOMPSON. — I would like to have Mr. Galvin give us and give the public a detailed statement as to the method of employing laborers; whether or not he does not keep a book in which he credits off each Common Councilmán with the number of men he has employed.

Mr. GALVIN. — I do, sir.

Mr. THOMPSON. — So as to prevent one man getting any more than another.

Mr. GALVIN. — Yes, sir.

Mr. THOMPSON. — With the understanding that each Councilman is entitled to about so many men?

Mr. GALVIN. — I do not know that they are entitled to it, but they claim it.

Mr. THOMPSON. — I do not say we get it.

Mr. GALVIN. — They get as many as we can hire, and no more.

Mr. THOMPSON. — The only thing I want to bring out, and I want Mr. Galvin to state it candidly, — for I don't think the responsibility of this matter rests upon him, but rather upon us, —

Mr. CLARK. — I have not had my share this year.

Mr. THOMPSON. — I do not know but I have had mine, fully; but I really think the blame rests upon us, and not upon Mr. Galvin; and I want his experience in the matter, — whether this pressure is not growing upon him; whether Councilmen, finding that they can employ men, do not press him more and more to employ men.

Mr. GALVIN. — Why, of course you all know, gentlemen, that the pressure has been more the last two years than ever before, because business is dull outside, and the city is paying a larger price than is paid outside.

Q. (By Mr. THOMPSON.) You say the city is paying more than is paid outside?

A. Yes, sir; everybody knows that, and the City Government knows it.

Q. Then this other question: The chairman of the committee just read a vote directing that hereafter laborers should be paid a dollar and a half a day. Have you found any difficulty in getting men since that vote was passed?

A. I say I do not give them a dollar and a half.

The CHAIRMAN. — That vote was afterward reconsidered.

Mr. THOMPSON. — Unfortunately.

The CHAIRMAN. — There is a vote of the committee authorizing Mr. Galvin to employ men at one dollar and seventy-five cents per day.

Q. (By Mr. THOMPSON.) Then I gather this: that as the result of your experience you believe it would be better for the men to be employed directly by the man who is to have charge of them, and not by the intervention of second parties.

A. If the superintendent has the hiring of his own men, he will make the best selection he can, and if the men are not discharged every week they will get acquainted with their work and perform more work.

Q. Then, in your opinion, a great deal of your difficulty and the excessive cost of your labor arises from the method of employing laborers?

A. I really do not know whether it is any more expensive.

Q. Well, you say yourself that a man employed for four or five days has not learned to do the work?

A. Not exactly. Where you shift men every week in that way you cannot expect to get a large amount of work from them.

Q. But your system has been under the pressure of shifting men every week?

A. It has for the last season.

Q. Now, that covers the ground of everything I want to ask you, except one thing, which is in regard to the buying of plants. As a matter of fact, you buy of Galvin Brothers?

A. I told you before I did not buy them at all.

Q. I mean your committee buy them chiefly from Galvin Brothers?

A. Yes, sir.

Q. They are generally ready to supply the city with the kinds they want?

A. If they were not, they could not furnish them.

Q. And no other nursery man is prepared?

A. I told you before that we advertised two years ago and could not get all the florists in Boston to furnish the plants.

Q. (By the CHAIRMAN.) Did you advertise this year?

A. No, sir.

Q. Can you tell why they are better supplied?

A. I suppose they make preparation to grow their plants for that purpose.

The CHAIRMAN. — Mr. Bryant asked a similar question a short time ago.

Mr. GALVIN. — I do not remember the question.

Mr. BRYANT. — He has answered it fully; it is precisely the question.

Q. (By the CHAIRMAN.) I was going to ask you this question: How is it that you get these plants if nursery men could not give them; and now you say you believe they get them because Galvin Brothers understand more particularly what is wanted and are prepared for them?

A. Yes, sir.

Q. They run the risk of selling to the city?

A. That is it exactly.

Q. I find by the records, that on May 17th a sub-committee was appointed to purchase the plants required for the public grounds, and Mr. Hiscock and Mr. Dee were appointed. That was the sub-committee appointed this year to purchase plants?

A. Yes, sir.

Q. And it was under their direction that they were purchased?

A. They purchased the plants, sir.

Q. Did they consult you?

A. They asked me what I wanted.

Mr. BRYANT. — Will you follow up the inquiry with the question if Galvin Brothers have not facilities for knowing beforehand what the city will require and providing themselves with it?

The CHAIRMAN. — The chair sees no objection to the question.

Mr. GALVIN. — They never received any orders from me.

Q. (By Mr. BURKE.) — Do you think that if a commission was appointed, as some members of the City Government have suggested, it would make a saving to the city of ten or twelve thousand dollars a year over the management of your present committee?

GEORGE A. SHAW. — Mr. Chairman, may I ask a question?

The CHAIRMAN. — Certainly.

Q. (By Mr. SHAW.) As you are aware, Mr. Galvin, I was a member of the Committee on Common and Squares for two years?

A. Yes, sir.

Q. During that time you had nothing to do with the per-diem pay of laborers; is it true?

A. What is that?

Q. With the per-diem pay of laborers; had you anything to do with the per-diem pay of laborers?

A. No, sir; I had nothing to do with it.

Q. That was my impression for the two years that I was there. Who fixed the pay last year?

A. The City Council, I suppose.

The CHAIRMAN. — The pay was fixed last year by a vote of the committee. The committee tried to reduce it at one time, but it could not be done.

Alderman CLARK. — I would like to have you ask if there was not an order passed by the City Council last year which prohibited any department from paying less than one dollar and seventy-five cents per day. I would like to know whether he knows that.

Mr. GALVIN. — That was my impression. I know that we could not hire men for less than one dollar and seventy-five cents.

The CHAIRMAN. — I find it in the records of the committee, under date of April 6th of this year.

Alderman CLARK. — You misunderstand me. I believe that

last year the City Council passed a vote declaring it to be the sense of the City Council that the rate of labor should not be less than one dollar and seventy-five cents a day. That was the action of the City Council last year, and of course the different committees were not allowed to make the pay less than that rate. If the gentlemen of the Council had passed a vote this year declaring that the sense of the City Council was that one dollar and fifty cents should be the price of laborers, we should have made the price one dollar and fifty cents. But a vote was passed last year, and Mr. Thompson nor any other new member of the Council has introduced an order declaring that it shall be a dollar and fifty cents instead of a dollar and seventy-five. The Paving Department have paid a thousand men a dollar and seventy-five cents per day, and the Committee on Common and Squares therefore thought, in the employment of their one hundred or one hundred and fifty men, they must pay the same price.

Mr. THOMPSON. — I would state that this is the first time I ever heard that such an order is in existence. I cannot conceive that it has any legal effect; but if there is in any man's mind an impression that it has a bearing upon the matter, I will, for one, take care that he has a chance to vote upon it at our next meeting.

Alderman VILES. — In the Sewer Department we have paid but one dollar and fifty cents for the past three years.

Alderman CLARK. — I would like to ask the Alderman if he does not know about this vote?

Alderman VILES. — I do not know whether I did or not.

Alderman CLARK. — I would like to know if he does not pay two dollars and twenty-five cents in the Health Department?

Alderman VILES. — We pay them fifty-two dollars a month.

Alderman CLARK. — How much is that a day?

Alderman VILES. — The Alderman can figure it out. We have a very good class of men in the Health Department. The man who visits your house to take away the swill, his apron is a guaranty that he is honest. They are out in all weathers, and Sunday they come out to sweep the streets and take care of the crossings, if it is necessary, without extra pay. We have the best class of labor in the City of Boston in the Health Department.

Alderman CLARK. — How many men do you employ in the Sewer Department?

Alderman VILES. — Sometimes more and sometimes less; from fifteen to forty.

The CHAIRMAN. — In the Sewer Department, as the Alderman states, the pay of the laborer has been one dollar and fifty cents, and in the Water Department the pay of the laborer has been one dollar and fifty cents. I know that in 1876 there was a movement made in the City Council to reduce the pay of the laborers from one dollar and seventy-five cents to a dollar and fifty cents; but it failed. I do not think the order passed.

Alderman CLARK. — Mr. Chairman, it was a resolution and not an order; it was a resolution expressing the sense of the City Council.

The CHAIRMAN. — To reduce the pay of laborers, as the sense of the City Council, and that was rejected?

Alderman Clark. — Yes, sir.

Mr. Vose. — Do I understand that this is all that is required of Mr. Galvin?

The Chairman. — If no other gentleman desires to ask Mr. Galvin any more questions.

Q. (By Mr. French.) I would like to ask if any of this committee, or of previous committees, have made any attempt to ask for proposals or contracts for plants in the fall or winter, — whether it has not always been done in the spring?

A. Not to my knowledge; they have not.

Q. You say that, not to your knowledge, have they made contracts in the winter and fall?

A. No, sir; they never did.

Q. It has always been done in the spring?

A. It has always been done in the spring.

Mr. French. — It seems to me that is the reason why only one firm could furnish the plants.

Alderman Clark. — I would like to have you ask the superintendent, whether he thinks any number of gentlemen would be likely to go to an expense of five or six thousand dollars to raise plants for the City of Boston, to be bought next spring, when a dozen men were going to work to compete with him, and that only one could supply the city, and he did not know that he would be the fortunate man and get the job.

Alderman Viles. — Would it not be well to advertise in the fall, and then the fortunate man could go to work?

Alderman Clark. — I hardly think the committee would be justified in agreeing for this five thousand dollars' worth of work in the fall.

Alderman Viles. — They do it in the Paving Department.

Mr. Wilbur. — Could they not be authorized?

Alderman Clark. — They might.

Alderman Viles. — We advertise for piping in the Sewer Department.

Mr. Thompson. — I would like to ask Alderman Clark whether this year they have not bought plants to be delivered next spring?

Alderman Clark. — No, sir. We have got them now in the ground. I am surprised that Mr. French should put that question to me.

Mr. French. — I did not ask it. I beg Mr. Clark's pardon; my question was on another matter altogether.

Alderman Clark. — Bulbs, Mr. Thompson ought to be aware, are planted in the fall of the year. I think before we get through, Mr. Thompson will know considerable about the Common and squares.

Mr. Thompson. — I hope so. What I wish to say is that the chairman of the committee on the part of the Council, in explaining in the Council the reason for the appropriation, stated that there was one thousand five hundred dollars which had been set aside to meet a contract for something, which I understood to be bulbs or plants, to be delivered next spring.

Alderman Clark. — It is a mistake in relation to their being delivered next year.

Mr. WILBUR. — As this has been rather a long session, I am afraid I am getting a little mite tired.

Mr. VOSE. — And hungry, too; aren't you?

The CHAIRMAN. — We want to get through with Mr. Galvin to-night, if it is possible.

Mr. RUFFIN. — I guess we are through with Mr. Galvin. I guess there are no further questions to be asked of him.

Mr. GALVIN. — Do you wish to ask me any questions about the trees on Tremont-street mall, Mr. Bryant? That seems to be your hobby, and I will try to answer any questions you may ask.

Mr. BRYANT. — Yes, sir; that is my hobby, and I am sorry you give me such reason to ride it.

Q. (By Mr. BRYANT.) I ask you by whose direction you gave directions to cut them down. You are aware that quite a number of trees were cut down?

A. Certainly; on the Common.

Q. You are aware that several trees near the corner of Park and Tremont streets, on the Common, were cut down, and that other trees along the Tremont-street mall have been cut down?

A. When, I ask, were they cut down?

Q. This summer.

A. On the corner of Tremont and Park streets?

Q. Yes, sir; shortly after the Paddock elms were cut down.

A. I will say to Mr. Bryant that there were no trees cut down this summer at the corner of Tremont and Park streets.

Q. We will not spend time talking about it. I want to come directly to the point. I want to know if you are aware that several trees were cut down, two or three large elms near the corner of Park and Tremont streets?

A. Yes, sir.

Q. In the second place, whether you are aware that, since that time, certain others have been cut down, without designating the precise time when?

A. Yes, sir. Now you have got it right.

Q. I am very glad to find we are getting on in our work. Now may I ask by whose order they were cut down?

A. By my authority, sir, which I have from the committee, — the privilege of removing dead trees.

Q. Does that extend to the removal of dead trees?

A. No, sir; that is, if they are not too far gone in consumption. I considered this tree too far gone, and not worth saving.

Q. You are a judge whether the trees are in a hopeless condition, or subjects for your axe; is that a fact?

A. I suppose that is it. I think the committee place confidence enough in me for that.

Q. With regard to the tree you made the remark about, that it was like a man far gone in consumption, which could not live but a little while, — there was a little life in it?

A. Not one particle.

Q. Will you answer one or two questions in regard to this cutting down?

A. I will endeavor to.

Q. You say that the trees were really dead.

A. They were not dead nor alive. It is like a man far gone in consumption, and with no possibility of recovery.

Q. Then you considered it your duty, as it was in that state, to put it out of existence?

A. Yes, sir.

Q. And not try to have it remain?

A. Yes, sir.

Q. Well, have not trees been cut down, the trunks of which were perfectly sound? Were not those trees near Park street perfectly sound in their trunks?

A. Whether they were, there are neither limbs, stumps, nor stems there now. There is one opposite the corner store, which ought to be removed. It is neither useful nor ornamental; it is nothing more than the common trunk of a tree.

Q. Mr. Galvin, you are a florist and a gardener. Have you had any such idea as to plant zinnias there?

A. It has been done frequently.

Q. You prefer to get the wood. You seem to prefer to cut the trees down instead of decorating them in that way.

A. Yes, sir.

Q. Don't they make excellent standards when properly treated? Don't the trunk of a tree, if you are obliged to head it in and lop off its branches, don't it make the best sort of a standard,—the trunk of a sound tree?

A. What do you mean by that?

Q. One that is not decayed.

A. I cannot understand you, sir. If a tree is thrifty it is not cut down; but if there are any dead limbs upon it of course they are removed. It is not likely I am going to cut the limbs off and then plant vines around it to decorate a tree.

Q. No, sir; but when a tree in your judgment is half gone in consumption, and not likely to recover, or when you have cut off its top branches, and its trunk is yet sound and healthy, can it not be made a subject of ornamentation?

A. Not on the Tremont-street mall; it cannot.

Q. Have you ever tried?

A. I have not tried, but I know it. I have had experience in it. You mean by putting loam around them. You are a dealer in loam, I think.

Q. No, sir. I beg your pardon. I could get loam and make vines and shrubs grow there; and I ask you if you are not capable of doing that.

A. That might be done, of course.

Q. But you never have done it?

A. No, sir; I never have.

Q. But you have cut down — I want to know, as a matter of fact, whether you have cut down a great many trees that were not dead, and which, if they had been let alone, might have lived?

A. No, sir; never.

Q. You have cut down trees that were not dead?

A. No, sir. If they were not dead they were so near it they

might as well be removed. There are more trees of that sort, and if you will accompany me a little while I think I will endeavor to convince you.

Mr. BRYANT. — I presume you might be of that opinion; but I do not want to discuss that.

Mr. GALVIN. — Now, I would like to know where they are going to get their nourishment?

Mr. BRYANT. — The only question I want to ask, — and I am following the advice of a member of this committee, whose advice I think is as good as any one, — is about the cutting down of these trees. I want to know whether you are responsible, or to whom we are to look for cutting down such trees.

Mr. GALVIN. — The old trees on the Common will compare favorably with any old trees in the United States. On the Tremont-street mall these trees have been dying for the last thirty years; for what reason, — do you know?

Mr. BRYANT. — Yes, sir.

Mr. GALVIN. — Well, I will endeavor to illustrate my reason. I know the reason very well. I do not want to hear one sermon from Professor Parkman, and I presume he is a professor as well as others. There are three rows of trees there. I suppose you are aware of that, any one of you.

Mr. BRYANT. — I am not seeking to prolong this discussion, Mr. Chairman.

Mr. GALVIN. — Well, these trees have been a great hobby with you, and I want to give you my view about them.

Mr. BRYANT. — Certainly, if the committee are willing.

Mr. GALVIN. — There are three rows of trees on the Tremont-street mall, as originally set out. The first row, of course, they cut a good deal in setting the street rail. Their fibrous roots got into the street —

Q. (By Mr. BRYANT.) How many of these original trees are there to-day which were planted in the three rows?

Mr. GALVIN. — These roots being so cut off, of course it cut off the supply of nourishment from that row of trees, though they might get a little nourishment and survive a few years. The inner row of trees, as I said before, will compare favorably with any trees of their age in the country. The middle row, gentlemen, is so completely surrounded by the roots of these trees that they cannot get any nourishment. It is like placing a man in this room, with plenty of air, and plenty of light, and plenty of sunshine upon him. How can he live with that only? He has got to receive some nourishment to support his body, otherwise he cannot live a great while; unless he might go over to Parker's and get one of Galvin's eleven-dollar dinners, or even one of Crocker's five-dollars-a-plate dinners, — that might keep him alive a good while. These trees are placed in the same position, without any mode of living whatever. I do not care what any horticulturist says, or what the president of any society says; he cannot make a young man out of an old one, and it is just about the same thing in this matter. Two years ago we had occasion to put in some gas-pipes, and I am sorry Mr. Allen's man is not here, or if Mr. Allen was

present he could not help saying it. There was a trench dug on that mall, about two feet and a half wide, in order to put in gas-pipes, and what was the result? The result was that that ground had not received any moisture for the last ten years. What is going to support these trees? Can you make trees or vines grow about these trees? I say it is impossible, unless you give some extraordinary pains to it. I proposed to my committee to make some alterations there some years ago, but we could not get an appropriation. You have got one row of trees as good as any you will find, but in the middle you might as well put in different ones. They have absorbed all the moisture that is suitable for these trees, and therefore they have got no nourishment whatever.

Q. (By the Chairman.) Do you think the taking away of the sidewalks and the changes there were detrimental to the trees?

A. I do not think it, — I am sure of it.

Alderman Clark. — I have no doubt of that myself, although I voted for it.

Q. (By Mr. Bryant.) No suggestion has been made to you with regard to keeping the trees along the Tremont-street mall?

A. Not to my knowledge.

Q. And what are cut down — have they been rightly cut down, do you think?

A. When?

Q. I ask with regard to the trees living or dead. Have mistakes been made, or faults committed?

A. I understood from Mr. Bryant that he was a good judge. Now I will take him to the Common, and I will show him on that Common two diseased trees, and he cannot tell whether they are living or dead.

Mr. Bryant. — Mr. Chairman, I shall have to ask you to put my question.

Mr. Ruffin. — Mr. Bryant, he has answered that question.

Mr. Galvin. — More than once, I think.

The Chairman. — Will you be so kind as to put your question again?

Mr. Bryant. — My question was whether Mr. Galvin alone is responsible for the cutting down of the trees on the Tremont-street mall?

Mr. Galvin. — I remove all dead trees.

Mr. Bryant. — He is responsible for the removal of all dead trees. Now, if a tree is so far gone that it cannot live, though it has some little life in it, who is responsible for removing it?

Alderman Clark. — I would like to have you ask the superintendent whether he ever removed a tree from Tremont-street mall that was not dead past all recovery?

Mr. Galvin. — Never, sir.

Mr. Bryant. — Then, Mr. Chairman, the witness did not mean what he said when he said that he removed some trees that he thought were going to die. He says he never removed a tree from the Tremont-street mall but that he thought was past recovery.

Mr. Galvin. — No, sir; I did not say so. I said it was nearly dead, or like a man far gone in consumption.

Mr. BRYANT. — The chairman of the committee asked you if you ever removed a tree that was not dead past recovery.

Mr. GALVIN. — I never did. When a tree is past recovery I call it dead.

Mr. BRYANT. — You might have exercised that judgment.

Alderman CLARK. — I will put it in another way. Did he ever remove a tree when it was not so sick that it would not be better to have it out of the way than in the way?

A. Never, to my knowledge, sir.

Mr. BRYANT. — Now, will you be kind enough to answer the chairman, or me, without any regard to the trees being sick or well, whether you or somebody else is responsible for such trees as have been removed?

A. There have been no trees removed from there that are not dead, in six or eight months, and I am responsible for those trees. Is that satisfactory?

Mr. BRYANT. — No, sir; but it is all I expect to get.

Mr. VOSE. — There is certainly no objection to answering that question. He wants an answer, yes or no, whether or not, if Mr. Galvin sees fit to remove trees, he does it on his own responsibility, or whether or not he is advised to do it by the committee?

Mr. BRYANT. — That is it, exactly.

Mr. GALVIN. — I never ask any advice about the removal of dead trees. When I see them I remove them; and whatever trees have been removed —

Mr. BRYANT. — I submit to the gentleman who was so kind as to put my question in a proper form, whether that is an answer to it?

Mr. VOSE. — The only point to answer is simply this: if there is a tree up there that you think ought to be removed, and at the same time have a little doubt about, do you consult the committee?

Mr. GALVIN. — There is a tree up there now which, if I had my way, I would remove forthwith; and which, if Mr. Bryant will come with me to-morrow, and will tell me it should remain —

Q. (By Mr. VOSE.) But do you consider it your duty to go up there and cut that tree down?

A. No, sir. I told you I had the right to go.

Q. When you think a tree is past recovery you cut it down, and if you do not think it is past recovery you go and ask permission?

A. That is it.

Mr. BRYANT. — Then I must say you have exercised some very poor judgment with regard to some trees.

Mr. GALVIN. — I thank you — I thank you.

Q. (By Mr. BRYANT.) You spoke of loam and street-sweepings, and said that when mixed they made better manure than loam itself?

A. For a certain purpose.

Q. Well, the material that has been used about Monument Hill has been ordered by you, has it not?

A. I have done it through the orders of my committee.

Q. Did they tell you where they got it?

A. No, sir.

Q. Then you have ordered material that has been used on your own responsibility?

A. I have ordered from the parties that were contracted with to furnish the loam.

Q. Well, the loam that has been ordered there has been ordered by your direction?

A. They instructed me to do the work there.

Q. Did you, or not, order this loam direct?

A. Yes, sir; it could not have got there unless I ordered it.

Q. You paid them by the load, did you not? You did not buy it by the square?

A. No, sir; I did not.

Q. But by the load?

A. By the load, as we usually do.

Q. Now are you not aware that the city has plenty of street-sweepings that it can have without buying them?

A. I have that to learn yet.

Mr. WILBUR. — I cannot see what these questions have to do with this investigation. This seems to be a matter entirely outside of this hearing, and I do object to sitting here and hearing such questions put. The question was put to the superintendent whether he ordered this loam. Now it is well known that the loam is furnished to the city by contract, if I understand it. Now I do not know what difference it makes whether these street-sweepings were given to Mr. Nawn before he sold them to the city, as long as they are furnished to the superintendent for filling.

The CHAIRMAN. — I will read the order which was not only passed in the committee, but also by the City Council. [Reads.]

Ordered, That the Superintendent of Common and Public Grounds be authorized, under the direction of the Committee on Common and Public Grounds, to contract for the purchase of red gravel, manure, loam, trees, etc., used in their department.

That covers the whole ground, and it was not only passed by the committee, but it is an order introduced into the City Council and passed publicly by the City Council. Under that order Mr. Galvin has contracted for loam, gravel, and such material.

Mr. BRYANT. — Now, Mr. Chairman and gentlemen of the committee, I put it to you as citizens and tax-payers, whether it is immaterial to this investigation to inquire whether Mr. Galvin goes and buys of certain men street-sweepings that the city has given away, and that he can get for nothing. Is it material?

The CHAIRMAN. — Mr. Bryant does not understand the order. [Reads.]

Ordered, That the Superintendent of Common and Public Grounds be authorized, *under the direction of the committee*, etc.

Mr. Galvin cannot make a contract, individually, with Mr. Nawn or any other man, unless that contract is approved and sanctioned by his committee.

Mr. BRYANT. — Pardon me one moment, Mr. Chairman. It is a fact that there is a vote of the committee that Mr. Galvin should do certain work around the monument, in the way of smoothing up the grounds; it is estimated that the work will cost a certain sum; it is in evidence, if I remember rightly, that so many loads of material were bought of Mr. Nawn and others at so much per load; it is further in evidence, that the best material for the purpose is street-sweepings mixed with loam; and that is just the material they profess to have put in. Now, it seems to me, it is important to go one step further, and find whether, under the authority directing Mr. Galvin to do that thing, he bought of and paid Mr. Nawn for that material, when he could get the same material equally well adapted, from the Health Department, without any cost.

Mr. GALVIN. — I beg your pardon, but did not Mr. Forristall give in evidence that he sold the best of the street-sweepings?

Mr. RUFFIN. — He can explain whether he can get them for nothing.

Mr. BRYANT. — I am only asking if it is not relevant. If it is not, I am the last person to press the inquiry; and if the committee think it is not material I will withdraw the question.

Mr. RUFFIN. — Mr. Chairman, I think the shortest way is to let the question be put.

Alderman VILES. — Mr. Forristall said he deposited the street-sweepings wherever he could get a chance. Some of them he deposited at the city stables; the best of them he sold; and he deposited some on the land of Mr. Nawn, on Albany street or Harrison avenue. They lie there on his lot and decompose, and then I presume they become good loam and Mr. Nawn sells it.

Mr. BROWN. — That is just what I was going to explain.

Mr. RUFFIN. — It was also stated in evidence that it requires about two years' exposure to make it good.

The CHAIRMAN. — Let the question be put.

Mr. BRYANT. — I will leave it here.

Mr. RUFFIN. — I submit, Mr. Chairman, that the question should be put.

Mr. BRYANT. — The question I intended to ask was, whether the same material could not be obtained from the city that is purchased from outsiders?

Mr. GALVIN. — No, sir; it could not.

Alderman VILES. — The city has no place to put it. The ashes we have to pile up in heaps. There is no place to put them, but people must get rid of them.

Mr. BRYANT. — Well, I think, if you and I were managing the city as a private affair, we should manage it a little differently. Now I will pass from this point, and I would like to ask Mr. Galvin one or two more questions. Mr. Galvin was present, I think, when they decided to make some filling around the monument.

Mr. GALVIN. — I was present at a portion of the meeting, sir.

Q. (By Mr. BRYANT.) You heard the discussion as to the probable cost?

A. I told you I was present at a portion of the meeting. There was talk about some amount of money.

Q. May I ask what you considered the largest sum, or what do you now understand to be the largest sum, the committee then proposed to expend?

A. They mentioned from five hundred dollars to twenty-five hundred dollars. Before the vote was passed I had to leave.

Q. And you, knowing about what their idea of grading around the monument was, and what it would cost, went on and laid out the present plan? I understand from the Committee on Common and Squares that you were their adviser on that question.

A. There is not much plan to it, but whatever plan there is there the committee adopted through me, of course.

Q. Then, under that order that contemplated an expenditure of five hundred dollars or twenty-five hundred dollars, you have entered upon a plan that involves five thousand dollars or six thousand dollars?

A. I did not enter upon this plan with the expectation that it would cost five hundred dollars. When I came down next day I went to Mr. Clapp, and saw this order instructing me to do the necessary grading around the monument. I could not see any price mentioned, neither five hundred dollars, twenty-five hundred dollars, or five thousand dollars.

Alderman CLARK. — I think these gentlemen (Mr. Thompson and Mr. Bryant) ought to ask their questions themselves, and not put just one question, and then another, and all that sort of thing. I do not wish to interrupt Mr. Bryant at all.

Mr. BRYANT. — I thought it would save time to consult.

Q. (By Mr. BRYANT.) What did you consider the necessary work?

A. To perform my work in a good manner, suitable to the tastes of the committee and the citizens who visit it. I did not propose to go to work in a bungling manner. Whatever I have done is done satisfactorily, I think; and, even if there was never a monument put there, there ought to be something done with that hill. It has been an eyesore for a long time, and a place for vagrants and beggars. Now it is intended that it shall be one of the most attractive places on the Common.

Q. And you supposed that under an order which contemplated an expenditure of five hundred dollars, or two thousand five hundred dollars, you could go on and do what you thought was necessary?

A. If I had any occasion for a lawsuit and should employ you, and told you I would pay you what was necessary, I think you would find a way to run up a bill.

Mr. BRYANT. — I don't think you will send for me if you have need of such services.

Q. (By Mr. BRYANT.) You did not consider there was any limit within which you were confined?

A. There is no man who would consider there was a limit to that order, as I look at it.

Q. (By Mr. THOMPSON.) I would like to ask if you had deemed it necessary to increase the size of the hill one-half larger than it is now, you would have gone on and done it?

A. I believe I have a little sense left.

Mr. THOMPSON. — I want to know what you considered to be the limit, — it is the only way to get at it.

Q. (By the CHAIRMAN.) Did Mr. Galvin think he was bound to do anything ridiculous or extravagant?

A. No, sir; I think that is foolish.

Mr. THOMPSON. — The question might well be asked whether he has not done a foolish thing there in what he has done.

Mr. GALVIN. — Very few have made their appearance here to that effect, Mr. Chairman.

Mr. THOMPSON. — Gentlemen are here representing a great many citizens. I have heard several say they did not like it.

Mr. GALVIN. — I do not see very heavy tax-payers here to represent this case.

Mr. BRYANT. — I wish to say, Mr. Chairman, that I represent people taxed for half a million of dollars.

Alderman CLARK. — I would like to have the gentleman mention their names.

Mr. BRYANT. — I will do so.

Alderman CLARK. — I deny that he is here representing tax-payers to the tune of one hundred and fifty thousand dollars. I would like to know whom he represents, because I have some interest in this.

Q. (By Mr. THOMPSON.) I would like to ask Mr. Galvin this question, do you consider that under that order you had the right to expend a thousand dollars more than you did? and if so, might you also have gone on and spent a thousand dollars more than that?

A. I would keep on until the grounds were in a suitable condition.

Mr. THOMPSON. — Resting entirely upon your own discretion.

Mr. FRENCH. — I want to ask one more question on the matter, Mr. Wilbur was interested in at the last hearing. In regard to these trees at East Chester park, I understood that at one of the last hearings Mr. Galvin said that the reason they would not grow was because of the gases of Roxbury Canal.

Mr. GALVIN. — Did I say anything else?

Mr. FRENCH. — I do not know. I saw it in the paper, and I only wanted to know whether that is correct.

Mr. GALVIN. — We missed you here considerably; there was not so much talk as usual.

Mr. FRENCH. — That has nothing to do with it. I simply asked whether that was a correct statement, — whether the paper made a correct statement.

The CHAIRMAN. — The gentleman will please confine himself to the matter before the committee.

Mr. FRENCH. — That is what I am trying to do. I asked if that was a correct statement.

The CHAIRMAN. — Will Mr. Galvin answer that question?

Mr. GALVIN. — What I said was, the gases from Roxbury Canal, from the sewers and the gas-pipes. I believe those are the words I used. If you have taken account of it here, I think you will find that is what I said, and I think I will say it now.

Mr. FRENCH. — I will say, in regard to that, that coal gas, it is well-known, in all its properties is deleterious —

Mr. RUFFIN. — I object — I object.

Mr. FRENCH. — But that the gases from Roxbury Canal, ponds, or decayed vegetable matter, are detrimental to vegetable life, I do not think any gentleman will argue.

The CHAIRMAN. — Mr. French, this is objected to by the committee. You said you wanted to ask Mr. Galvin a question, and you are giving a long dissertation on gases, etc.

Mr. FRENCH. — At the last meeting a gentleman asked whether the gas arising from Roxbury Canal was injurious to the trees, and I wanted to say I did not believe any gases could be injurious, except coal gases.

The CHAIRMAN. — Is there any other gentleman who desires to ask Mr. Galvin any questions?

Mr. RUFFIN. — That is all, Mr. Galvin.

Alderman CLARK. — I would like to ask Mr. Bryant a question, so that the committee may understand this matter. I would like to ask him if he is an expert in the management of plants, and the pruning and growing of trees?

Mr. BRYANT. — I think I stated, at the first meeting, that I was not. At the first meeting I had the honor to attend I said that the only knowledge I have is theoretical.

The CHAIRMAN. — I believe we have examined all the members of the committee who are present. If any other gentleman present desires to say anything he will now have the opportunity.

Mr. THOMPSON. — I would like to ask if Mr. Pope, of the committee, is here?

The CHAIRMAN. — Mr. Pope was called away about half an hour ago; he could not wait any longer.

Alderman VILES. — I move that we adjourn, Mr. Chairman.

Mr. BRYANT. — If the chairman of the Committee on Common and Squares desires it, I should like to fortify my statement. I appear here for the heirs of the estate of Mr. Dorr, representing one hundred and twenty-five thousand dollars.

Alderman CLARK. — Have they asked you to come here and represent them?

Mr. BRYANT. — I can answer that question in my own way. I represent the estate of Samuel Priest (?). I am trustee of that estate.

Alderman CLARK. — Are you required by the heirs of that estate to come here and represent them?

Mr. BRYANT. — I come in here as a tax-payer, and in fulfilment of my duty as trustee.

Alderman CLARK. — Did the heirs of this property request you to come up and appear for that property?

Mr. BRYANT. — I do not take my orders as trustee from any heirs. I also represent the estate of Mr. Benjamin Wells.

Alderman CLARK. — Do the heirs of the estate of Mr. Wells request you to come here?

Mr. BRYANT. — I come here, on my own responsibility, as a trustee and a tax-payer. I can give you other estates that will come up to the half million very quick.

Alderman CLARK. — I do not doubt you are a trustee for a very large amount of property; but I want to know whether the parties you represent request you to come here and pursue the course you have?

Mr. BRYANT. — No, sir; no person can make me responsible for the very poor manner in which I have attended to my duty here.

Alderman CLARK. — Mr. Bryant, you are too well known as an able advocate to make any such apology as that. You say you represent half a million dollars' worth of property; and it simmers down to this, that not one person of the number you represent has requested you to come here and complain of the management of this department.

Mr. BRYANT. — You are rather hasty in your conclusion, sir. Perhaps you would like to have me read a letter from Mr. Abbott Lawrence, specially requesting me to appear here, and regretting that he could not be here himself. I do not know the amount of property he represents.

Alderman CLARK. — Well, it is a large amount.

Mr. BRYANT. — I could mention other gentlemen, but have reached my half million, and shall stop; but there are plenty of them.

Mr. RUFFIN. — I move we adjourn.

The CHAIRMAN. — If we have another public hearing, it will be announced in the papers.

Adjourned to Wednesday, November 14.

Sixth Session.

November 14, 1877.

The committee met at half-past four P. M., in the committee room.

All present except Mr. Burke.

Statement of John A. Smardon, Member of the Committee on Common, etc.

The Chairman. — You are aware of the nature of this investigation?

A. Yes, sir.

Q. We should be very happy to hear what you have to say about the management of Common and squares.

A. Any particular thing?

Q. Well, no; anything that strikes you as important.

A. Well, there is only one thing, and that is in regard to the grading around the monument. I was not present at the meeting when it was voted to expend five hundred dollars.

Q. I believe the records state you were not.

A. Yes, sir. I was absent from that meeting.

Mr. Brown. — There wasn't any such meeting, was there?

A. I don't know, further than as the records show.

Q. Well, I mean about the five hundred dollars.

A. I don't know anything but what the records state. I shouldn't have voted for any sum like five thousand dollars. I shouldn't have voted probably for more than five hundred dollars.

Mr. Wilbur. — When did you first hear of the expenditure that was being made there?

A. It might have been two weeks after that meeting.

Mr. Ruffin. — Did I understand that you were present at that meeting?

A. I was not, sir.

Q. And consequently don't know what vote passed?

A. No, sir, except by the records.

The Chairman. — Can you give us any information about the purchase of rhododendrons?

A. Mr. Kelsey met the committee in the City Hall, in the committee room, and we talked with him some time about rhododendrons and azalias. He wished to furnish something like two thousand dollars' worth at the start, and he didn't wish to furnish any less. I think the price was one dollar and fifty cents each.

Q. That matter was left in the hands of a sub-committee?

A. Yes, sir. It was left in the hands of a sub-committee.

Q. Were you on that committee?

A. No, sir; I was not.

Q. In relation to the Charitable Mechanics' Association, it was charged at the last meeting that members of that Association vis-

ited the Common and squares committee, and got all they wanted after they visited you?

A. That had nothing to do with it, so far as I am concerned, and I don't imagine it had with any other member of the committee. The Mechanics' Association had a dinner at the Revere House; it was their annual dinner, I understood, and the Committee on Common and Squares were invited there, and I know not how many more outside of that committee.

Q. But it had no bearing on the vote of the committee afterwards?

A. Not a particle, so far as I know. It had no weight with me.

Mr. WILBUR. — So far as the committee was concerned, it was no expense to the city?

A. Not a dollar; not a cent.

Q. It has been a custom, in passing votes upon a matter, to pass a regular vote of the committee?

A. Usually by vote of the committee.

Q. In all cases?

A. I think it is. Yes, sir.

Q. Have you ever known of a case where a vote has been passed where there has been an expenditure of money to any amount, where a regular vote has not been taken?

A. Not that I know of, sir.

Q. Has it been the custom, in authorizing Mr. Galvin to make any changes, or do any special work requiring any action of the committee, has it always been the case that an actual vote has been passed?

A. Yes, sir. I don't know anything Mr. Galvin has done without it has been with the sanction of the committee.

Q. And that sanction is by a vote?

A. Yes, sir.

The CHAIRMAN. — And he is under this guidance and instruction?

A. Yes, sir.

Q. In the intervals between committee meetings that guidance is by the chairman, or some sub-committees who have charge of the work?

A. Yes, sir.

Mr. RUFFIN. — Do you know anything about the purchase of any other flowers beside the rhododendrons?

A. There were other flowers purchased, but I was not on the sub-committee to purchase flowers, sir.

Mr. WILBUR. — What sub-committee were you on?

A. I was on the sub-committees on watering, and on playgrounds for the children.

Mr. BROWN. — I wanted to ask you, Mr. Smardon, if you had ever seen any lack of good judgment or anything out of respect in regard to Mr. Galvin, the superintendent?

A. No, sir.

Q. If you have anything in your own heart, that you thought he weren't attending to his duty honorably and smartly?

A. No, sir; not a thing.

Q. And you haven't any feeling that there was any neglect of duty on the part of your committee?

A. I have never seen or known of any.

Mr. WILBUR. — What is your opinion of the mode of employing help by being recommended by members of the Common Council and Board of Aldermen?

A. I think we have paid too much for help there, and I think it a wrong practice that Councilmen should have anything to do with it.

Alderman VILES. — Do you think the help there does as much as in other departments?

A. I should say they do, sir.

Mr. WILBUR. — Do you mean to say, — comparing them with the employés in the Health Department, for instance?

A. So far as I have seen them, I think they are as good men.

Q. Then why do you think the custom of having men employed by members of the City Government is not a good one if you get as good men?

A. I think that sometimes men are exchanged for men not quite as good, and think they sometimes have more men than they really ought to have.

Q. Isn't it a fact that he gets men there that he sees are incompetent, and isn't he obliged to discharge them?

A. I think so.

Mr. BROWN. — Speaking of the Health Department, isn't it a fact that no Councilman or Aldermen, or the Mayor of Boston, has been able to get a man put on to the Health Department by influence?

A. I don't know; I never put a man on. I have put but a few men on the Common, and those have been men, with one exception, outside of my own ward.

Mr. RUFFIN. — By this recent arrangement you are entitled to put three men on?

A. Yes, sir. I put one on, and gave one to a member of the Council, and another to another party not in my ward.

Q. Are you familiar with the amount of labor done by the employés of the city in the Common Department? Do you know how much work is to be done?

A. I know there is an immense sight of work to be done.

Q. What is your judgment on that point, as to whether they employ too many or not enough men?

A. I think there are sometimes too many; then I think there is not enough.

Alderman VILES. — Do you think it would be better to keep the same men on than to keep changing on account of a pressure from members of the Board and the Council?

A. I do, sir.

Q. You think it would be better?

A. Yes, sir, I do.

The CHAIRMAN. — And place the whole care and responsibility in the hands of the committee?

A. Either in charge of the committee or of the superintendent. I think it would be better perhaps in the hands of the committee than it would be in the hands of the superintendent.

Alderman VILES. — I would like to answer Mr. Brown's question that he asked in regard to the Health Department. He says it is impossible for the Mayor or any member of the City Council to get a man into that department. We never make any changes except for cause, and, as a consequence, there are no changes except when a man dies or there is a vacancy for some other reason.

Mr. BROWN. — That is the way I understood it. I went to get on a man from my ward (twenty-three), and Mr. Forristall told me that a man hadn't died in his department lately, and there was no room.

Alderman VILES. — A man is never discharged except for cause.

Mr. HOWES. — Mr. Smardon, you were asked by a member of the committee, I believe, whether the votes were always taken and announced before being recorded. I should like to ask you if it is not quite frequently the case that a meeting is carried on in a conversational manner, and that the vote is put by the chairman as the motion of Mr. So-and-so, without exactly stating what the motion is?

A. It is frequently done in that way.

Mr. RUFFIN. — I don't know that I got your answer to the question propounded about the manner of conducting business in the meetings of the committee. What was your reply to the question?

A. That the question was frequently put in that way by some member of the committee rather than by the chairman.

Q. You have known of instances of members of the committee putting a question to vote rather than the chairman?

A. No, sir; it comes through the chairman.

Q. All questions are put in that way?

A. Yes, sir, nearly all; I don't know but all.

Q. Have you known an instance of a question being put by anybody other than the chairman?

A. No, sir, not without coming through the chairman.

STATEMENT OF ALDERMAN LUCIUS SLADE.

The CHAIRMAN. — The committee desire to know what information you can give us about Common and squares, and the mode of doing business in that department.

A. Well, I don't know as I exactly understand what you want me to say.

Q. Can you give us any information about rhododendrons, in the first place?

A. I think that very nearly the first business that came before the Committee on Common was the appearance of a person who very much desired the city to introduce the rhododendrons and azalias. I think he interviewed every member of the committee

every other day, or every day, for a long time; he did me certainly. Of course I knew but very little about it, having just been placed upon the committee. My impression was that we shouldn't do anything about it, when this man, Kelsey, — I think that was his name, — first made his appearance. He seemed to be very anxious that the city should purchase about two thousand dollars' worth of rhododendrons and azalias. That seemed to be the mark he had set, and after persistently pressing his wishes upon the committee I think that finally a sub-committee was appointed upon that subject, and it was finally agreed to purchase one thousand dollars' worth. To go through all that was said back and forth upon that subject would be probably saying more than anybody would want to hear. The result was, however, that it was agreed to purchase one thousand dollars' worth, — I think that was it, — and the price I could not state with certainty, because I have forgotten the price we were to pay. I didn't know anything about the price of such things then. We were referred to gardeners and business persons out of town, and, in consultation with Mr. Galvin, — he believing he could make them live, — it was agreed to introduce them. I believe they were introduced, and were a success for the first season, and are so called by gardeners and those who understand them better than I do.

Q. Can you give us any information in relation to the trees upon the Common?

A. What do you mean, — the trees standing there?

Q. The trees standing; their condition, care, and treatment.

A. Well, I never noticed but what the trees upon the Common were doing well enough. Now and then an old tree — as everybody knows, the limbs will dry up and die from some cause that nobody can tell, the same as they will anywhere. In fact, on a farm away up in New Hampshire, I have some maple-trees, when the first anybody knows there is a dead limb, and the trees wither up and die, and nobody knows the cause. It will do the same on the Common, and nobody knows the cause of it. So far as the trimming goes, I haven't noticed anything particularly wrong about that. There may be an instance where a limb was sawed off for the time being that perhaps was expected would be trimmed in proper shape and heal over; but I don't think anybody can find that it is left in a condition injurious to the tree.

Q. You have had some experience in the care and management of trees?

A. I have had a little experience. I don't pretend to be a gardener. I have had a little experience in taking care of trees since I was a boy, more or less. I know it isn't in the power of man to hinder trees from dying, the same as people die. I don't know why it is. You find it so in all of nature's works. You will notice that all at once a tree throws off its leaves, and it is from some cause or other that we don't understand.

Q. In relation to grading around the monument?

A. My recollection about that is something like this: the committee were notified to meet. I may not possibly state that correctly, but I think I will. I inquired for what purpose, and it

was suggested that the Committee on Dedication of the Monument wanted some trees cut, and that they also wanted some grading done, both of which propositions I at once thought I wouldn't consent to. I dislike to cut down a tree anywhere, and in any place, as much as any man, unless you want it for firewood. But the committee were called together; and, speaking of the trees, I strongly opposed the cutting down of a tree. We finally went on to the Common and examined. The trees that were desired to have taken away seemed to me, perhaps, to be as poor trees as there were on the Common. They had already had limbs taken off to some extent, agreeably, I suppose, to the wishes of those who had the monument in charge. Some of the limbs came over close to the monument, and, as everybody knows, the dripping from the limbs will discolor polished marble, to say the least. Those trees had been in so poor a condition, — I don't think they were ever thrifty, promising trees. I didn't hesitate a great while to give my consent to have those trees taken down. I think it was well enough, under the circumstances, to have them taken away. That is about all I can say about the trees there. So far as the grading was concerned, it was suggested to me, when the Committee on the Monument asked to have it done, that they were asking a little too much. I knew that a large amount of money had been appropriated for the dedication of the monument, and I didn't think we should do anything about it. That was my impression.

Mr. RUFFIN. — What was it that the Committee on the Monument asked?

A: They asked to have some grading done about the monument.

Q. Did they indicate what?

A. They asked to have some trees taken down, and to have some grading done.

Q. Did they indicate to what extent?

A. No, I don't think they indicated to what extent. At that meeting some one suggested to Mr. Galvin, or asked, what it would probably cost to do the necessary grading; and I think Mr. Galvin stated that it would probably cost two thousand five hundred dollars. I think that was the sum named. Well, the committee at once all expressed themselves as decidedly opposed to laying out any such money, and I think it was agreed at one time not to do anything about it, and not lay out any money there. I think I made the suggestion myself, and asked if for three or four hundred dollars, or five hundred at the farthest, we could not do a little grading around the base of the monument to make it look respectable for the dedication. That matter was discussed from one to another. I know that I said that I would give my consent to the laying out of four or five hundred dollars — five hundred dollars at the farthest — to make it look respectable for that occasion. I supposed that when it was done there would be so much done toward grading around the monument, whenever the city got ready to do it; but I think it was the unanimous belief of the committee, at the time when we adjourned, that no more than five hundred dollars were to be laid out

there under any circumstances at that time, and had I known that the Committee on the Monument was going to build a platform around it, and cover up the work that we did do, I shouldn't have been willing to use any money this year for that purpose. I think that was the feeling of the committee. It was the way they talked, and the way their opinion was expressed. I cannot recollect that there was any motion made like what is recorded. I wouldn't say that there was not a motion made that we do the necessary grading; but it was distinctly understood that we weren't to go beyond five hundred dollars, and I supposed all of that was to be laid out before the dedication.

Mr. RUFFIN. — Do you remember who was present at that meeting?

A. No, I cannot state.

Q. Was anybody besides the committee and Mr. Galvin and the clerk?

A. I don't think; I think the Committee on Monument were in this room at that time.

Q. But was anybody present besides your committee?

A. I don't remember whether anybody was present when that conversation took place. We were consulting a little with the Committee on Monument.

Q. Where was that meeting held, — in this room?

A. In that room [the office of the Clerk of Committees].

Q. The chairman presided, and this whole matter was discussed in regard to the expenditure of this money?

Q. For that purpose?

A. For the purpose of grading?

Q. Yes, sir.

A. Yes, sir.

Q. Was any plan presented as to the grading to be done?

A. No.

Q. How much discussion was had? Did every member speak on it?

A. Yes, they seemed to. I should have said there was a unanimous expression of opinion. I think every man of the committee expressed himself, and the majority of the committee can talk, I believe.

Q. Did every member of the committee state what amount he thought it would be proper to expend?

A. I think some of the committee thought we ought not to expend any; and I was of that opinion until the suggestion was made and assented to by the committee. I think I made it myself, that we might expend five hundred dollars to give it a respectable appearance for the dedication; I think that was my desire, and I think that was finally the minds of the committee, and they finally assented to it, at all events.

Q. Did you remain until the meeting adjourned?

A. I think I did.

Q. Are you sure of that?

A. I feel sure of it, because I rarely, if ever, leave the committee until they do adjourn. I think I was present.

Q. Do you recollect whether you were there when the vote was put authorizing the expenditure for grading?

A. No, I have no recollection of that vote being put.

Q. Are you prepared to say that no vote was passed?

A. I will say by agreement, the universal consent of the committee, the forester was to expend a sum not to exceed five hundred dollars. That was the expense.

Q. That don't answer the question. Are you prepared to say that no vote was passed authorizing an expenditure of money for grading purposes?

A. No, sir, I am not.

Q. So you are not clear whether the vote was —

A. I am willing to say that afterwards, when I found so much grading done, and found that vote upon the book, I was very much disappointed.

Q. And you have no recollection of the vote being passed?

A. No, I haven't.

Q. Wouldn't you be likely to hear such an important thing as that?

A. I think, if a motion had been made as is reported, and I had known of it, I should have objected to it; and I am sure I was present at the whole meeting.

Q. Would you have objected to the passage of the vote as recorded in the clerk's minutes?

A. Yes, sir; because I see it leaves it open to an unlimited expenditure of money, and that wasn't the understanding of the committee.

Alderman VILES. — Were you aware of the amount of grading and filling at the time it was going on?

A. I wasn't in the habit of going on the Common every day, nor very often. But I may say I was greatly surprised when I was told by one of the committee that there had already been expended five or six thousand dollars, more or less. I was as much surprised as anybody could be.

Alderman DUNBAR. — Was any vote taken upon the subject at any subsequent meetings?

A. I don't recollect whether there was any meeting after that until after the dedication.

The CHAIRMAN. — The vote was passed August 28th: —

Voted, That the superintendent be authorized to have the necessary grading done on the grounds near the Army and Navy Monument on the Common.

Then again, September 5: —

All present except Mr. R. Pope.

The committee proceeded to visit the Common for the purpose of inspection.

A. Yes, sir.

Q. Can you remember what amount of grading was done at that time?

A. Yes. I think I can very nearly. The ground had been laid out, and also a path around the monument. At a certain distance where we stood and noted the distance of the path from the monument — whether it was just about far enough or a little too near —

and one had one opinion and one another; but I believe we generally agreed that was a little too far off, and that people would persist in going a little nearer to the monument.

Mr. RUFFIN. — Did you know that that grading was done under the direction of the Committee on Squares, when you went, subsequent to this meeting of which you speak?

A. I had no thought at all that the superintendent would have spent more than five hundred dollars.

Q. I understand that; but when you went to the Common, did you know that that was being done under the authority of the Committee on Common and Squares?

A. I supposed it was so far as it went.

Q. But at the same time you had no recollection of the passage of the vote authorizing the expenditure of any money?

A. I shouldn't doubt that there was a vote passed to expend not exceeding five hundred dollars, because that was the distinct understanding.

Q. But you don't recollect the passage of it?

A. No, sir, I do not.

Q. But did you, at the time you saw the grading going on, on the Common, did you think it strange and irregular to proceed with that grading when no vote had been passed?

A. I don't know as it occurred to me in that light at all. I didn't think there was anything to be done beyond five hundred dollars. I supposed when that money was expended that would end it.

Q. But in the general talk about the expenditure, and in your mind, you fixed the limit at five hundred dollars, and there had no authority been given to expend even that amount, according to your recollection?

A. No. I have no recollection of that vote. I wouldn't say it wasn't passed. I cannot remember whether it was or not. But I can only distinctly remember when Mr. Galvin suggested that to do the proper grading would cost two thousand five hundred dollars, and I remember distinctly that the committee was opposed to that; and when the suggestion was made that we could spend from three to five hundred, I think Mr. Galvin said that couldn't do a great deal.

The CHAIRMAN. — Mere levelling off?

A. Merely levelling off around the base of the monument, as I said before, to make it look respectable for that occasion. I didn't suppose we could do the grading. We had but a limited time to do it. I think the committee were generally of the same opinion that I was in that respect.

The CHAIRMAN. — Do you think the committee meetings are carried on in a regular or an irregular manner?

A. I don't know but the meetings in that committee are as regular as any other committee. I have no doubt but all of us are sometimes careless when votes are passed in committees. In this case, if even this vote had been made and carried, I shouldn't have supposed for a moment that it would carry the thing any further than five hundred dollars, which we had distinctly understood and talked about.

Q. Important measures involving the laying out of money, are they not presented to the committee to be acted and passed upon?

A. As a general thing I suppose they are; certainly, on all cases they are. Possibly our eyes might have been blinded to the motion, all of us believing that any motion that might be carried didn't carry us beyond the five hundred dollars which we had all agreed upon. I know there wasn't a man there that supposed any vote would be passed that gave the superintendent unlimited power to spend any money he saw fit. The understanding of the committee was that there was a limited amount of money to be expended. That was the understanding of the committee.

Q. That was your understanding?

A. It was my understanding, and none of the committee advocated anything different. I guess they all pretty much talked upon it.

Q. Somebody suggested two thousand five hundred dollars?

A. Mr. Galvin was asked how much it would cost to do the proper grading around it, and he said it would cost probably two thousand five hundred dollars, and it was the universal sense of the committee that they wouldn't lay out that amount of money. Finally it was simmered down to the fact that they would lay out five hundred dollars. There was a very short time to do it.

Q. It wasn't simmered down by passing any vote?

A. No, sir; I don't think it was. I mean it was the universal understanding of the committee.

The CHAIRMAN. — Were you aware of the fact that so many teams were working day and night to do the grading around the Common?

A. No, sir, I was not. I hadn't been on the monument ground from the day of the dedication until I was informed by a member of the committee to what extent the work was going on. As a general thing the chairman of the committee is expected to look after the business of any committee he is chairman of.

Q. Who do you think is responsible for that amount of work?

A. Well, in any committee that I am chairman of, I consider I am more responsible than anybody else for any right or wrong doings. It isn't expected that every man on a committee is going to examine all portions of the public grounds very often. They cannot do it. The expense of time and carriage-hire to do that would make another big item in the expense. The chairman of any committee has power delegated to him a little more than any other member of the committee, so far as acting in the absence of the committee. The superintendent would naturally go to the chairman, and he, of course, would be likely to carry out the views of the committee, if he understood them.

Mr. WILBUR. — Do you remember any formal vote being passed in committee on any such measure?

A. No, sir. I have only remembered the sentiment of the committee on that point.

Q. I don't mean this particular vote, but have you any recollection that any vote was passed?

A. Oh, yes. I could not tell what, but I know votes are passed.

Q. Is it generally the custom when a vote is passed that a regular formal vote is taken in your committee?

A. There never is any vote put in writing.

Q. No, but verbally?

A. I think, as a general thing, votes are made and recorded, and the committee understand them.

Q. The same as in any other committee that you are on?

A. The same as in any other committee. I don't see why this committee's business isn't conducted as safely as any other committee's.

Q. How do you account for this record being made as it is?

A. I cannot account for it at all. I can only, as I have said half-a-dozen times, account for what I know was the sentiment of the committee, and the understanding of the committee when we adjourned. I don't believe there was a member of the committee that had the slightest idea that there was a vote passed there leaving it open to anybody to expend an unlimited amount of money, because in all the conversation there was a certain limit of the expenditure to which we would go for that occasion.

Q. Do you think Mr. Galvin went beyond his authority?

A. I think somebody went beyond the authority of the opinion of any member of that committee. I cannot tell who is responsible for it.

Mr. BROWN. — You think there is somebody responsible for it?

A. Yes, sir, it seems to me as though there is somebody ought to be. Somebody ought to have known we were expending a larger sum of money than the committee expected we were going to expend.

Q. So you think, under that vote that is recorded, that the Superintendent of Common and Squares was authorized to expend five or six thousand dollars, by that record?

A. I don't know. I haven't seen the vote; but, as I understand it, it is open to the expenditure of an unlimited amount of money. But I know that wasn't the sense of the committee by a long shot.

Mr. VOSE. — When you were up on the Common, the day the committee visited it in relation to the cutting down of those trees, you saw what work had been done at that time?

A. Yes.

Q. In your judgment wasn't there more than five hundred dollars' worth of work done at that time?

A. I don't think I examined the work to see whether there had been or not. I shouldn't have thought, under any circumstances, that more than five hundred dollars was going to be expended there at all; I shouldn't have thought of it at all. I know there seems to be, and I can see now that there has been a good deal of stone dumped in there, and quite a wharf built up there, but for what purpose I don't exactly understand. I have no doubt this grading that has been done is very beautiful and excellent for the monument, and would probably have had to be done, and ought to have been done, some time.

The CHAIRMAN. — You believe it is a great improvement?

A. I think it is a great and splendid improvement, and it will be a beautiful spot when finished; but I don't think the committee expected to do it under the appropriation made.

Alderman VILES. — You think it would have been done next year, if not this?

A. I do. I don't think it was intended to do it now; but it would have been done some time.

Mr. BROWN. — If the proposition had been to present it to the City Council for an appropriation, the question was, whether you should have voted for it?

A. I certainly should, because I think it would have to be done some time.

Mr. HOWES. — Mr. Slade, is it not the custom in the Committee on Common to have votes passed by a statement of the person's name rather than a statement of the vote, — that is, Mr. Pope's vote, or Mr. Smardon's vote?

A. I should say it was.

Q. Without having the vote restated over again?

A. I should say so.

Q. And isn't it often the case that quite a conversation ensues between the time the mover makes his motion and when the chairman puts it upon its passage?

A. Frequently so.

Q. I should like still further to ask you if you had any idea until I told you — I think it was on Saturday noon, on the 15th of September — that the expense of that grading on the Common was to be more than five hundred dollars?

A. I had not the slightest idea, and I was very much surprised when you told me to what extent it was going.

STATEMENT OF COUNCILMAN RICHARD POPE.

The CHAIRMAN. — I have a vote on April 26th, "That a subcommittee be appointed to take charge of the planting and pruning of trees in South Boston;" and Mr. Pope and Mr. Dee were appointed. What can you tell us about the pruning and planting of trees?

A. Mr. Dee and I were appointed a committee to do that. A great deal of complaint had been made about the trees there not being properly trimmed. We went over there in connection with another matter, and I think we made a report, and Mr. Galvin sent some men over there and trimmed the trees.

Q. The condition of the trees on the Common, — can you give us any information?

A. I cannot give you any particular ideas about that.

Q. In relation to the grading around the Army and Navy Monument?

A. I attended a meeting of the committee, and a communication was received from the Army and Navy Monument Committee, asking that some grading be done around the monument. The question was asked about how much it would cost to have it done

properly, and I think something like two thousand five hundred dollars was mentioned; I think that was the sum. I immediately suggested to the committee that we didn't have money enough to spend any such sum as that, and we ought to go to the Council for an appropriation; and I made a motion that the committee go to the City Council and ask for an appropriation of two thousand five hundred dollars to do that work, on the supposition that it would be an expensive job. But there was considerable, I may say, laughing amongst the committee about spending any such sum; and the remark was made that all they wanted was to have it levelled off, which would cost some three or four hundred dollars. I then withdrew my motion, and, after considerable debate, in which the sum of three or four hundred dollars was mentioned, and no larger sum, it was unanimously agreed upon in the committee that such an expense should be incurred, — some three or four hundred dollars, merely for levelling off around the monument, — and that was the distinct understanding in the whole committee, that it should not exceed that sum.

In regard to the vote passed, I don't think any such vote was passed in the committee as is recorded there. The chairman of the committee stated at the last meeting that if the members of the committee had attended to their business, they would have seen what was done around the monument. I can state that shortly after — within a week — that vote was passed I went to the committee, and saw what was done, and remonstrated with the superintendent for the amount of work which was going on there. I saw there was a very large expense incurred, far beyond what any of the committee intended should be incurred. I asked him what business he had to do it, and he told me he was authorized to do it by a member of the committee. I went and saw the chairman of the committee, Mr. Clark, and remonstrated with him, and he told me he could get an appropriation through easy enough, when it was necessary to meet the expense. I told him I didn't think it was a proper way; that the expense was being incurred without any appropriation; and I spoke of the motion which I made, which was not entertained, asking for two thousand five hundred dollars, as that was not necessary.

Sometime afterwards I went to the Common again, and the work was progressing. Then I think Councilman Howes saw the chairman of the committee and spoke to him again about it, and I think he made the same remark, that we could get an appropriation through. Mr. Howes went with me at that time. We then went and asked Alderman Slade, who was sitting at the desk, what he thought of the matter, and he told us as has been stated — that it was the first he knew of it, and he didn't think any such money would be expended, and he had no idea that more than three to five hundred dollars would be expended.

Mr. Ruffin. — What was the nature of this communication received from the Committee on the Soldiers' Monument?

A. I didn't see the communication. It was merely read by the chairman, that they asked that some grading be done around the monument.

Q. Was that the language?

A. I think that is about the language.

Q. That some grading be done around the monument?

A. I didn't see the written communication.

Q. You say it was unanimously agreed, — was that "unanimously agreed" arrived at by a formal vote?

A. No, sir.

Q. How did you arrive at it?

A. By conversation and talk.

Q. Was that the general way of doing business, without coming to a vote?

A. No, sir.

Q. Is the agreement always expressed in a formal vote?

A. When there is an expenditure required?

Q. Yes.

A. I think it is and has been.

Q. I understand you to say that there was no vote passed for the expenditure?

A. There was no vote such as is recorded there.

Q. Was there any vote passed?

A. I cannot positively state that there was not. If there was a vote passed, it embodied the whole thing, that the expense should not be over three hundred dollars.

Q. Will you say no such vote was passed?

A. I wouldn't swear to that.

Q. Have you any recollection about it?

A. I have no recollection that any vote was passed, except it might be — I don't think it was passed in any shape at all of the vote being put. I think the chairman made the remark, "Well, it is understood that the grading shall be done around the monument at such an expense;" not exceeding a few hundred dollars.

Q. Did you think the matter settled?

A. Certainly, I did.

Q. Do you think that the proper way to do the committee business?

A. Well, as I say, my impression is that that is the way the thing was decided. I cannot swear the thing was not put in the regular way, that it should not exceed three or four hundred dollars; and the first intimation I had that there was such a vote was sometime afterwards, when some discussion arose about this matter, and Councilman Flynn went into the room and took that book and showed me that vote; and I told him it was the first intimation I had of the vote being passed as recorded. I say now that no such vote as is recorded in that book was ever passed in that committee.

The CHAIRMAN. — How do you reconcile the difference between you and Alderman Slade? His recollection is five hundred dollars.

A. His recollection is so; my recollection is three or four hundred dollars. Any way, any sum over five hundred dollars wasn't mentioned there. My recollection is, three or four hundred dollars.

Mr. Brown. — When you looked at the record, were there any other records placed upon that book?

A. I didn't look; I merely looked at that page. In regard to the second meeting, — I think it is Sept. 5, — it states I was not present. I didn't receive any notice of that meeting until it was too late to attend. Within an hour and a half of the time of that meeting I was on the Common, and drove up there in my own carriage, and saw Mr. Galvin. We had a conversation about cutting down trees. I told him I was utterly opposed to cutting down any tree there; and I told him I had just got a notice of the meeting a short time before, and had made an engagement which I could not break, and was obliged to go out of town on the half-past-two train. I told him I wished him to state to the committee that I was opposed to cutting down any tree of that kind. I don't know whether he told them or not. I see by the record that the committee went there and voted to cut them down afterwards.

Mr. Wilbur. — What did Mr. Galvin say when you remonstrated with him; when you found there had been so much expended, — that he had authority from a member of the committee?

A. That he had authority from a member of the committee to do it.

Q. From what member?

A. From a member.

Q. Did he state who the member was?

A. I cannot say he did. I inferred in my own mind, and I didn't ask any further.

Mr. Brown. — In your own mind, did the superintendent expend any more money than he ought to have done according to that vote?

A. Not according to the vote as it is recorded on that book. I think he had the right to spend two hundred thousand dollars there, if he takes his orders from that book.

Q. Isn't that where he gets his orders?

A. I don't know. I suppose the orders are communicated to him by the clerk of the committee.

Mr. Vose. — In your experience as a member of this committee, have you ever had the records of the clerk of the committee questioned?

A. I don't think they ever have been.

Mr. Howes. — Hasn't it been your opinion, from the fact that the superintendent was in the room when votes are passed, and when discussions are had upon questions, that he took his authority rather from the sentiment of the committee than from the mere fact that such and such a matter was registered in the book?

Mr. Ruffin. — I submit that he could not answer such a question.

Mr. Howes. — I ask your impression.

A. I cannot give what my impression is. He might have taken them from the committee; and I don't know how he took them.

JOHN GALVIN. — *Resumed.*

Mr. GALVIN. — I think I stated in my evidence, when I was on the stand, that I was at a portion of this meeting, but before the meeting adjourned I was called away, and I didn't know anything about the order passed until the next day. I went in and saw the assistant clerk of committees, and he showed me the record; and I did my work accordingly.

Mr. POPE. — I should like to ask you if you recollect a conversation I had with you on the Common, as I have stated here?

A. I do, sir, and I think it is correct.

STATEMENT OF JOHN H. DEE.

The CHAIRMAN. — I find that on May 17th, the committee

Voted, That a sub-committee be appointed to purchase the plants required for the public grounds. Messrs. Hiscock and Dee were appointed.

Can you give us some idea how those plants were purchased?

A. Well, I met Mr. Hiscock, and asked him what he proposed to do about the purchase of these plants; and he stated that he would leave it entirely with me, and asked me to use my best judgment in the matter. I asked Mr. Galvin the number of plants it was usually customary to buy every year, and who they were purchased from. He stated that his boys had always supplied the city with them heretofore, and that I had been out to the greenhouse, and knew what there was there; and I could judge myself whether his boys could furnish them as well as any one else, or not. I asked him if any fault had ever been found with Galvin Bros. supplying plants, and he said that, a year or two years before, some objection had been raised, and a committee was appointed to investigate the matter, and they found that Galvin Bros. could supply them as cheap, if not cheaper, than any one else in the business. I then made a contract with Galvin Bros. to supply the department with plants, and told them they would receive instructions from the superintendent as to the number of plants required, and what the different varieties should be, and that I would leave the matter entirely with him, as he was the best judge of what was needed and what had been the custom in former years.

Q. You are in the flower business?

A. Yes, sir; I am connected with the business.

Q. And acquainted with the prices of plants?

A. Yes, sir.

Q. What were the prices, comparatively, of the plants purchased for the Public Garden?

A. I should say that, taking them as a whole, they were furnished a great deal cheaper than I expected they would be. I know I have seen plants sold in different places for double, and sometimes treble, what Galvin Brothers charged. I figured out the

plants myself, and the amount paid, and I found they averaged hardly eight dollars a hundred.

Mr. RUFFIN. — What was this contract that you entered into with Galvin Brothers?

A. It was to supply the plants.

Q. Any number specified?

A. No, sir; I left that entirely with the superintendent.

Q. Was the price specified?

A. The price specified was that they would furnish them as cheaply as anybody else, and the same as last year, and do better, if possible.

Q. Was the variety of plants specified?

A. No, sir.

Q. How could you fix the price?

A. I made no contract, except to ask what they would charge for such and such things, and, being told, I was satisfied.

Q. The contract you entered into was to furnish flowers at the same price as last year?

A. The same as last year.

Q. Did you enter into any contract for what should be supplied?

A. Yes, sir. I told them Mr. Galvin would tell them what to furnish.

Mr. VILES. — Did you make any inquiries among other florists?

A. No, sir, I did not.

Mr. RUFFIN. — This contract was for so many geraniums and other plants, and was made verbally?

A. Yes, sir.

Q. Was that all the contract made?

A. No contract was made, except a verbal one.

Q. Did you fix the price of geraniums?

A. No.

Q. And fix the price of any plants?

A. Nothing at all whatever.

Q. Simply that they should have the supplying for the city?

A. Yes; and supply them at the prices that they did the year before.

Mr. WILBUR. — Was the making of this contract left entirely to you, and your own judgment?

A. Yes, sir.

Q. And you didn't report back to the committee?

A. No, sir; I didn't understand that I was to report back to the committee.

Q. A committee was appointed?

A. A sub-committee was appointed to contract for plants.

Mr. RUFFIN. — And when you were appointed on the sub-committee, didn't you understand that you were to make the purchase of the plants themselves, and actual inspection of them?

A. No, sir, I didn't understand it in that way.

Q. What did you understand your duty to be?

A. That I was to give the contract or job to any person I saw fit. Mr. Hiscock left it to me, and I gave it to Galvin Brothers.

Q. And you didn't know the number and condition of the varieties bought?

A. No, sir.

Q. I see the first item here is, April 23, two hundred and seventy-five plants and trees bought?

A. I had nothing to do with the trees.

Q. When the plants were bought, could you give any information as to what was bought, and what was paid for them?

A. No; I didn't buy the plants. I left that entirely with Galvin Brothers to receive instructions from Mr. Galvin.

Q. Then you didn't see the plants yourself?

A. No, sir; except I saw them growing, and saw them planted in the Public Garden and public places.

Q. And you didn't know the price until the bills were rendered?

A. No.

Q. Did you approve the bills?

A. I looked over the bills and saw that the prices were reasonable, and I approved the bills.

Q. How could you tell that the prices were reasonable?

A. I had seen the plants when I approved the bills. I had been to Mr. Galvin's house, and had seen the plants in different places.

Q. Well, let us see about that. How many bills have you approved for plants from Galvin Brothers?

A. I know there is one bill of four thousand and odd dollars, and I think there were one or two others; possibly three others.

Mr. WILBUR. — Was that May 22, or June 16?

A. I don't remember the exact date.

Q. Four thousand four hundred and twelve dollars?

A. Somewhere in the neighborhood, or in that vicinity.

Mr. RUFFIN. — [Reading]: —

May 19, Galvin Brothers, plants and trees, one thousand three hundred and thirty-seven dollars and fifty cents.

Do you remember about that?

A. I remember that bill; it is a large amount.

Q. Did you know what the city got, from a personal knowledge?

A. No; I do not. I didn't count them. I asked Mr. Galvin what it was customary to furnish every year, and he stated they would probably furnish the same amount this year as in former years. I asked him if any fault had ever been found with the plants; and he stated that he knew of one case (and I knew of this case), of the committee going around inquiring the prices; and I heard that they reported that they were satisfied with the prices Galvin Brothers had charged; and I took it for granted, from the appearance of the Public Garden this summer, that the contract had been well carried out. I had nothing to do with the purchase of the plants myself.

Mr. WILBUR. — It has always been customary to leave this entirely with the superintendent?

A. Yes, sir; I have understood it was, and that every committee had left it entirely with the superintendent.

Q. As to number and quality?

A. Yes, sir.

Q. The price was agreed upon with the sub-committee?

A. Yes, sir. In looking over the bills I saw that the different plants were put down as very reasonable. I certainly couldn't find any fault, because I know that the firm I am connected with had sold the same plants for a great deal better price.

Q. Could you have furnished the number of plants furnished by Galvin Brothers?

A. No, sir; I could not. I have no facilities for furnishing plants at all. I have no greenhouse.

Q. Do you know any firm in the neighborhood of Boston that can?

A. I don't know of one firm that can furnish that number of plants.

Q. Do you think, if estimates had been called for, and the city had advertised for a certain amount of plants to set out in the Public Garden, that they could have been procured in the neighborhood of Boston?

A. Not at that season of the year; not in the spring they couldn't.

Alderman VILES. — Do you think the city could do better by advertising in the fall?

A. If a guaranty could be given that the contract would be accepted.

Q. Could such a contract be given?

A. It would depend upon the committee or superintendent next year. I don't think any florist or gardener would attempt to grow plants without some guaranty that they would be taken off his hands in the spring of the year. Every summer now the auction-rooms are loaded up with plants, sold at ruinous prices. It looks as if some one had ordered plants and didn't come for them.

Q. Don't you think you could find plenty of parties that would agree to furnish two or three thousand plants?

A. They might furnish small quantities. Then somebody would have to stand right over them and see that they furnished what they agreed to.

Q. Do you think there would be any saving to the city, in having a greenhouse carried on by the City of Boston, to furnish its own plants?

A. If it was properly carried out it would.

Q. What do you think would be the expense of building a greenhouse sufficient for all the plants the city needs?

A. That I don't know. I should rather somebody better informed would answer that question.

Mr. RUFFIN. — Did you say it would be a saving to the city to have a greenhouse to grow its own plants?

A. I don't know as it would be a saving; but it would be more satisfactory to the public.

Q. You are not sure it would be a saving pecuniarily?

A. I don't know that it would.

Mr. WILBUR. — How are these plants raised?

A. They are struck in the fall, at this season of the year, carried along through the winter, and put out in the spring.

Q. Could not that be done right from the plants in the Public Garden?

A. It could be done.

Mr. VOSE. — Outside?

A. No, not outside; in the greenhouse it could.

Mr. RUFFIN. — Whose duty was it to accept the plants presented by Galvin Bros. to the city, under that contract?

A. The superintendent.

Q. You had nothing to do with it?

A. Nothing, except I was on the Public Garden, and saw the planting going on, and saw that they were put out around the different walks, and out on the parks in Charlestown. I went up to Chester Park two or three times, but didn't stay long enough to see the plants set out there. I looked after the Public Garden more than anything else.

Q. Did you have any offers from anybody else to furnish to the city?

A. No. It was a well-known fact throughout the whole City of Boston, and among the florists throughout the whole State, that I was on the committee to give that contract, and not a florist in Boston asked me for the job.

Q. It was not advertised?

A. No; it could not have been better advertised than it was. Every florist in Boston knows the committee; they all know I am in the business, and that I was appointed a sub-committee on plants, and not one asked me to give him a chance to furnish a thousand.

Q. You don't think the city paid an exorbitant price?

A. No, sir.

Q. You think it was a fair price?

A. Very fair — I think they furnished coleus for two dollars a hundred. I don't know how any man can grow them in four-inch pots, and sell them at that price.

Alderman DUNBAR. — What is the usual price?

A. They average all the way from eight to twenty cents apiece. We have sold them a good deal. It depends upon the plants.

The CHAIRMAN. — If a greenhouse is established, of what value would the plants on the Public Garden be from year to year?

A. The varieties put down could be purchased just as cheap in the spring as they could be to strike them in the fall and carry them through the winter.

Q. Wouldn't it deteriorate the looks of the Public Garden several weeks in the fall, if you attempt to strike those plants to put them in a greenhouse?

A. I think it would. If the greenhouse is erected anywhere on the Public Garden, I think it should be a sort of show-house; not quite as extensive, but may be something after the style of

Horticultural Hall at the Centennial, that some people would visit even in the summer months. Of course, such a place as that would cost more than the city would like to expend.

Q. Don't geraniums, and that class of flowers, grow so bulky that they are not worth taking into the greenhouse?

A. They are not worth keeping, and it would be cheaper to strike a new lot in the fall.

Mr. Ruffin. — What is the custom now? The flowers you get this year you set them out in the Public Garden and other public places, and when the fall comes they are of no value?

A. No value.

Q. They are to be given away or destroyed?

A. Yes, sir.

Q. And next year that same thing will be repeated, as I understand?

A. Yes, sir, and if the city was to grow them, they wouldn't be good for anything in the fall.

The Chairman. — There is no considerable value in them to any cultivator or grower of plants?

A. No, sir.

Q. Unless there are valuable plants?

A. Not coleus and geraniums, and things of that kind.

Mr. Ruffin. — In your judgment what would a greenhouse cost?

A. That I am not competent to pass upon. I have never had anything to do with building greenhouses and don't know anything about the prices. Almost every man has his own fancy about greenhouses.

Mr. Brown. — It appears that you based the prices of plants this year upon the prices last year?

A. And the year before.

Q. At any time prior to your approving these bills, did you compare any of these bills with any of the previous year's bills to see if you were getting them at last year's prices?

A. No, sir.

Q. You took their honor and respectability for your comparison?

A. I asked what was paid last year and the year before, and asked if they could do as well this year, and they stated they could do as well, if not better. I think that plants were purchased this year at a cheaper rate than Galvin Bros. could furnish them. I know the superintendent went to Hatch's and bought some cheaper than Galvin Bros. could furnish them; and they had them right in their greenhouse.

Mr. Ruffin. — Do you know about the cost of running the Public Garden as it stands?

A. No, I do not; I haven't remembered what the cost was.

Mr. Pope. — *Resumed.*

Mr. Pope. — In regard to purchasing plants I wish to state that at the beginning of the year, when this committee was appointed,

I looked over the bills of Galvin Bros., for furnishing plants, and I had the auditor draw me off the bill, and I wanted to see if it was all right. I went to a flower-dealer, and presented the bill to him; this was the bill of last year, not this year. I asked him if those prices were correct prices. He immediately asked me what the quality was; and consequently I couldn't tell him, and couldn't get any information whether the price was all right.

MR. DEE. — *Resumed.*

The CHAIRMAN. — The committee omitted to ask you, Mr. Dee, any questions about the grading. What information can you give us about the grading around the monument?

A. Well, I have had several conversations with the other members of the committee about that, and I must say I differ with them in this respect. I was at the committee meeting at which this communication was received from the Committee on the Soldiers' Monument, asking to have the grounds about the Soldiers' Monument graded. The chairman read the communication, and there was considerable debate over it, a sort of sociable talk, more than anything else, and no regular business. The question was asked how much it would cost. I think some member of the committee asked the superintendent what he thought it would cost to grade the grounds, and he asked how they proposed to do it. Then some suggestion was made to lay the grounds out the same as the grounds around the Washington statue, on the Public Garden, and he stated that if the committee proposed to lay that hill out as the grounds about the Washington statue were laid out, it might cost three or four or five thousand dollars. Alderman Slade, I think, stated that he didn't feel disposed to spend more than five hundred dollars, and then there was a great deal of talk about it; and as I understood it, when the committee adjourned, there was no instruction given to any one. I remember the vote being passed, and I think it is somewhat different from the way it is entered. I think, as I understood it, it was "that the superintendent be *instructed* to have the necessary grading" done, and I think it was passed a little time after this talk about five hundred dollars. There was some little talk about there not being money enough, and that the appropriation was running out, and that we could not afford it this year, and that we had better wait for another year; and some members said that if it was going to be done it better be done now, and better be done properly; and members of the committee made considerable talk about going to work at once, and a motion was made — I don't know by whom — that an additional appropriation be asked for; but whether he mentioned twenty-five hundred dollars I don't know, and wouldn't be positive about it.

Alderman VILES. — Was anything said about the Committee on the Soldiers' Monument paying a part of the expense?

A. Yes, I think it was stated that the Committee on the Soldiers' Monument ought to pay the expense; and furthermore

there was some talk about that committee asking for an additional appropriation; and one member of our committee suggested that we had better ask for an additional appropriation, and get ours in ahead of these, and that it was necessary to get it in first, for if they asked for theirs first we would stand a poor show. I judged from the talk that was going on about the Committee on Soldiers' Monument that it was understood we were to ask for an additional appropriation.

I cannot say that I understood that five hundred dollars was going to be the expense of that grade. I was on the hill every day and saw the work going on, and could see that five hundred dollars would not cover it.

The CHAIRMAN. — What was your idea of the expense?

A. I don't know. I asked the snperintendent what it was going to cost, and he said four or five thousand dollars. I didn't ask him who authorized him, or what authority he had; but I supposed he took it from the vote passed at the meeting. I won't say that the vote was passed precisely as it was written there, but that is substantially the sense of it.

Mr. WILBUR. — Was the vote passed after the conversation with Alderman Slade, he objecting to five hundred dollars, and saying that five hundred dollars would be the extent he would be willing to vote for, — was the vote passed after that?

A. Yes, sir; after that, but it was all at one meeting.

Q. Did you understand that there was a vote passed authorizing the superintendent to go on and do the necessary grading?

A. I understood the vote was passed instructing him to go on and do the necessary grading, and then there was some talk about this committee not having money enough, and letting the committee of next year do it; another stated that we might ask for an additional appropriation.

Q. You stated that you were on the Common every day nearly?

A. Nearly every day I was on there some part of the day. I was on there nearly every day, because I used to go on the Public Garden.

Q. Did you expect that it would cost three or four thousand dollars?

A. I am very sure I didn't expect that five or six thousand dollars would be expended on there at the start. I asked Mr. Galvin, and he said what is worth doing at all is worth doing properly, and he guessed there wouldn't be any trouble about getting the money. I afterwards had a conversation with Mr. Pope in Mr. Galvin's office, and said I understood the vote was passed in that way. I think I went in with him and showed him the vote passed, — he and some one else.

The CHAIRMAN. — You were one of the sub-committee on rhododendrons?

A. Yes, sir.

Q. What can you tell us about that purchase?

A. Well, nothing except what the other members of the committee have already told. Mr. Slade and myself were appointed

a sub-committee to give the contract to Mr. Kelsey. The committee had already voted to purchase five hundred rhododendrons and one hundred azalias, at an expense of one dollar and fifty cents each, delivered, to be good plants, satisfactory to the superintendent. The contract was made with Mr. Kelsey, and the rhododendrons were received. Mr. Galvin was authorized to receipt for them. I asked him in what condition they arrived; and he said he was perfectly satisfied with them. This summer I went down to see them, and I asked him what he thought of them, and he said they had turned out better than he thought they would. I was somewhat opposed to them, and in the committee didn't vote to purchase them. I was on the sub-committee and simply did what I was instructed to do.

Mr. RUFFIN. — You saw the rhododendrons on the Public Garden?

A. Yes, sir.

Q. Was the price paid a fair one?

A. I have sold rhododendrons such as these, and paid more for them; I have seen plants sold at Covent Garden for five shillings apiece that wouldn't compare with these. I have asked other gentlemen in the business, and they thought they were cheap enough.

Mr. WILBUR. — Have you ever imported any?

A. Never; but I have seen men who imported them, and I took the catalogues and showed to Alderman Slade what they could be purchased for in England and New York, and what people paid for them in Boston.

Mr. RUFFIN. — Did you know the market value here in Boston?

A. I cannot say I am posted on it; I know the plant when I see it; I am not posted on the prices of the flowers.

Alderman VILES. — Do you think it would be better for the city to import direct?

A. Well, in the first place it is something I did not believe in at all; I don't believe that they will live in this climate. I don't think they will live on the Public Garden very long. I don't know how this lot will turn out, but the city can import them just as cheap as anybody else. The city can send right to Waterer and get them. Mr. Galvin stated that to the whole committee last winter when it was proposed to buy them; he stated that the city could purchase them just as well.

Mr. WILBUR. — You say you approved the bill for the plants purchased of Galvin Brothers?

A. Yes, sir.

Q. Were these bills approved by Mr. Galvin when they came to you?

A. I approved them first. I looked over them and approved the prices, and asked Mr. Galvin if it was necessary to have his signature, and he said yes.

Q. And did you count them?

A. No, I asked if they were satisfactory to him, and he said they were, and, as he expressed it, the boys had done better this year than last year.

Q. And then those bills went before the full committee?

A. Yes, and no objection was found to them at that time. Mr. Clark read all the bills, and they lay in a pile upon the table for anybody to inspect. All the bills were laid here in that way.

Q. And then the chairman was authorized to sign a draft?

A. Yes, sir, and approve all the bills.

Q. Is the chairman authorized to approve all bills?

A. I think so.

Alderman CLARK. — Are not all bills approved by the whole committee, or a quorum of it?

A. Yes, sir. All bills are approved by the committee. They are passed around for inspection.

The CHAIRMAN. —They all pass through the committee's hands?

A. Yes, sir; they all pass through the committee's hands.

Alderman CLARK. — I want it understood that there has beeu more caution taken this year than ever before, and that the committee approve all bills, instead of the chairman, as heretofore.

The CHAIRMAN. — And the fact of the chairman's signature is proof that they have been approved by the committee?

A. That they have passed through the committee.

Mr. WILBUR. — Your bills are all before the committee for inspection?

A. Yes, sir; the chairman reads every bill to the committee, and usually passes them over to the chairman of the committee on the part of the Council, and he looks over them and passes them around to another; and sometimes a bill is passed by for further examination.

The CHAIRMAN. — I find an item on the record of August 28: —

The bill of Joseph T. Ryan, amounting to one hundred and fifteen dollars and five cents, was laid over, and the chairman was requested to confer with Mr. Ryan.

A. Yes, sir, I remember that.

Q. Well, what was the object of laying that bill over?

A. He charged too much for repairs of some kind, — painting, or something of that kind.

Q. Does that indicate to this committee that these bills were very closely scrutinized, to see that they were not too large?

A. Yes; that bill was looked over, and some one thought he had charged too much and thought a reduction ought to be made, and it was laid over. That was the way with several other bills, I think. One bill for seed, I think, and something else, was referred to Alderman Slade to see if it was too large.

Mr. HOWES. — Mr. Dee, you were speaking about this bill for seed; did you purchase the seed?

A. No.

Q. Didn't have anything to do with it?

A. I didn't have anything to do with the seeds at all.

Q. Or with the other purchases made from Frank T. Emerson?

A. No.

Q. You don't know who Frank T. Emerson is?

A. No, I don't know who he is.

Mr. VOSE. — As there seems to be some doubt about the record, I want to call Mr. Lee, and let him give his recollections of it.

STATEMENT OF WM. H. LEE, CLERK OF COMMITTEES.

The chairman read the record of August 28, including the vote to do the necessary grading near the monument.

Q. Were you present at the meeting on August 28, of which this is the record?

A. I was in the office, sir, at that time.

Q. What can you tell us about the vote authorizing the superintendent to do the necessary grading done near the monument?

A. I heard the vote put to the committee.

Q. Substantially as it is here?

A. Exactly, almost.

Q. Almost exactly?

A. The chairman put the motion in this way: "Well, what shall we do about this, gentlemen? Those in favor of authorizing the superintendent to do the necessary grading around the monument will say Yes; contrary minded, No; it is a vote."

Alderman CLARK. — Did you hear any opposition to it?

A. Not after the motion was put, sir.

Q. There was no response of No?

A. I went immediately out of the office, and that is the reason my attention was attracted to it; that is the reason I came to hear the vote passed. I shouldn't probably have noticed it, as I was not acting as clerk of the committee at that time; but I was going out of the office with some papers relating to the Army and Navy Monument business, and turned to speak to Mr. Clapp just as that motion was put, and had to stop the conversation in order to give him a chance to make the record, and that is how I happened to remember the fact.

Q. And you are aware of the fact that the record was made at that time?

A. Mr. Clapp turned around and made it, and it interrupted my conversation with him; then he turned back, and I said what I had to say to him and went out of the office.

Mr. WILBUR. — Do you recollect any conversation previous to this vote?

A. No, sir; I was busy at my desk, and didn't pay any attention to what was going on, except the vote for the grading around the monument.

The CHAIRMAN. — Did you hear any prices stated?

A. No, sir. I paid no attention to what was going on. I was busy on other work.

Q. And you probably wouldn't have known anything about it except that you were going out at the time?

A. I shouldn't have known anything about it if it hadn't interrupted my conversation with my assistant.

Mr. HOWES. — Do you know who was present at the time?

A. At the time the vote was passed?

Q. Yes.

A. I think the chairman, Alderman Slade, yourself, Mr. Dee, and the superintendent. I don't think Alderman Robinson was present, though I wouldn't say positively. I am very sure Mr. Smardon and Mr. Hiscock were not present at the meeting at all.

John Galvin. — *Resumed.*

Mr. Galvin. — I haven't got much to say, more than to state a conversation I had with the ex-President of the Horticultural Society day before yesterday. He had read the testimony of Prof. Parkman here on that evening, and previous to that you had a list of prices of the plants purchased, before this committee, by Mr. French, through Mr. Bowditch, from Wm. C. Strong, ex-president of the Horticultural Society. I was standing at the iron railing which surrounded the big tree on the Common in former days, and Mr. Strong came and tapped me on the shoulder. "Mr. Galvin," he says, "you had a list of prices at your meeting?" and I said, "I didn't have any prices of yours, Mr. Strong; somebody else had." He says, "The list of my prices came in this way: Mr. Bowditch wrote to me to furnish a list of the prices for which I would furnish such plants; I wrote them out and gave him my prices." I said, "Can you furnish plants in four-inch pots at those prices?" and he said, "No, I cannot." I said, "That is the kind of plants furnished in the Public Garden."

With regard to Mr. Parkman, I think he must be a little out of his mind in making the remark that he could import rhododendrons at fifteen dollars a hundred, which I know to be an absurd thing. I was not in favor of importing them through Mr. Kelsey, believing that the city could import them as cheap itself; but these plants could be sold here every day for three dollars apiece.

That was the amount of the conversation I had with Mr. Strong, another ex-president of the Horticultural Society.

Mr. Howes. — I wanted to ask whether you considered you were authorized, by that vote of the committee, on August 28, to go to any amount of expense in laying out the grounds around the Soldiers' Monument?

A. I could not consider anything different.

Q. *Any* amount?

A. The necessary amount.

Q. Say twenty-five thousand dollars?

A. I knew it wouldn't cost that.

Q. I meant to ask you what your idea was as to the amount; whether you considered you had authority to lay out any amount of money?

A. There was no specified amount, sir.

Q. Then you assumed that you could lay out any amount of money?

A. Any reasonable amount, so as to complete the work and put the grounds in order to the satisfaction of the committee and the public.

Q. Did you consult any member of the committee about the amount to be expended?

A. No, sir; some members of the committee were there nearly every day, and if they had any reason to object they would have objected.

Q. Did you ever speak to the chairman of the committee about it?

A. Not expressly in regard to the amount. The chairman was there probably three or four times a week, as well as other members. It was only a question of time, and it would have to be done at some future day even if there had been no monument erected on the hill. It was a place of bad repute, and the spending of this amount of money will make it one of the most attractive places on the Common.

Q. Immediately on the passage of this vote you went to work on the 29th of August, and marked out a plan?

A. There was no plan adopted when I commenced. I took the grades. The monument was erected on some coarse granite, and the ground was covered with stones, and we had to take a straight line from the base of the monument, and, after digging out, we found that the line was thrown more than three feet down, and the appearance of the whole hill was affected by it. If we had done nothing, it might have done for the time being, but eventually it would have to be done.

Q. Do you remember giving any estimates about the probable expense of carrying it out?

A. I did not. It would be impossible to give an estimate without taking the grades, etc.

Q. Then two thousand five hundred dollars was the largest amount; — you thought that was large enough?

A. There was no amount specified in the vote.

Q. No; but twenty-five hundred dollars was given as the amount to be asked for from the City Council?

A. I didn't go by the twenty-five hundred dollars; I went by the record.

Q. You were present at the meeting?

A. I was present at a portion of the meeting.

Q. You are generally present at the first of the meetings?

A. Yes; but I didn't know what might be done afterwards.

Q. You remember that twenty-five hundred dollars was mentioned as the cost?

A. You spoke about twenty-five hundred dollars, and some other gentlemen spoke about five hundred dollars.

Q. No amount over twenty-five hundred dollars was mentioned, and you went to work and considered you could spend twenty-five hundred dollars if you thought it necessary?

A. I didn't think I was bound to twenty-five hundred dollars, according to your record, or five hundred dollars. The place was in such a condition that the work had to be done there.

Mr. RUFFIN. — Have you any means of knowing how much it costs to keep and maintain the Public Garden per annum?

A. You can find it pretty correctly. Every dollar there is spent is itemized on the bills. I could not give it from my head, of

course, but every thing is itemized there on bills, so as you can see at a glance.

Q. You have some idea of the annual expenditure there, do you?

A. Well, probably it will cost in the neighborhood of twenty thousand dollars to carry on the Public Garden the way it has been carried on.

Now, gentlemen, there has been a good deal of criticism here by experts and amateurs, and I don't know but by some practical men. This Committee on Common is not responsible for laying out that Garden. At the time this Garden was laid out, I was in the same position I am to-day, and after the filling was done there, Hon. Samuel T. Crane, the chairman of the committee, advertised for plans and proposals for laying out the grounds, and whichever plan was adopted was to receive two or three hundred dollars. This plan was adopted, and since that time some alterations have been made. The Public Garden is not a place for pleasure as much as you might suppose; it is surrounded by the residences of some of our heavest tax-payers on three sides. Each gentleman, when he enters the Garden, wants to get to his place of business by as few steps as possible. That is the reason it is laid out as it is. There is no use of anybody saying this Garden should be laid out with broad swards. Those people who go through there want more walks down there, so as to get down to their places of business, and the chairman of the committee will corroborate my words. There is very little opportunity to make a landscape there. It is more of a thoroughfare than a pleasure garden; but we endeavor to make the most of it as it is.

Mr. French made the remark that we should have a winter garden there. It is a well-understood fact in this country that evengreens will not succeed in large cities. The smoke and dust accumulates on those plants aud chokes them, and they will not live. I have tried to make evergreens live there for many years; they linger along for a short, miserable existence and then die out.

Mr. WILBUR. — You say that when this work was carried on around the Soldiers' Monument, members of the committee visited it every day?

A. Yes, sir.

Alderman CLARK. — Did you say it was visited by members of the committee every day?

A. I would not say every day, but frequently.

Mr. WILBUR. — And you say if there had been any complaint they would have made it?

A. I presume so.

Q. You never heard any complaint?

A. Never heard of it.

Q. Did you hear any of the committee remonstrate about it?

A. Mr. Pope remonstrated, as he said that we would have hard work getting the appropriation; and I think Mr. Howes objected at one time.

Mr. HOWES. — That was after it was through.

Alderman CLARK. — He made no objection until after it was through?

Mr. HOWES. — I didn't see Mr. Galvin until about the 15th of September, when it was completed.

Mr. GALVIN. — It was about half completed, and you found fault, and thought the committee would have hard work getting the appropriation.

Mr. BROWN. — Have you done any work there since the 17th?

A. Yes, sir, a large quantity of it.

Mr. WILBUR. — Did Mr. Dee make any complaint?

A. No complaint that I ever heard.

Q. You heard his testimony, and he stated that he made a complaint or protest against its costing so much, and asked who authorized it?

A. He never made any complaint to me, that I know of.

Q. Did you ever say to him that a member of the committee authorized you to go on with this work?

A. No, sir, I don't think I did. I said that members of the committee had assembled there and come there upon the grounds and never found any fault. That is all I ever said.

Alderman CLARK. — Mr. Pope said that, Mr. Wilbur.

Mr. WILBUR. — Did Mr. Pope make any remonstrance of that kind?

A. Yes, sir, he objected to spending so much money there, as he said in his testimony. He opposed cutting down any trees, and he wished me to tell the committee, when I saw them, that he was opposed to cutting down an elm there; and I explained how the other trees would be benefited by it, and how there were too many there; and to-day there are many trees on the Common which can be cut down, and the remainder will be benefited by it.

Q. Did you state to Mr. Pope who authorized you to go on with this grading to the extent that you did?

A. Nothing more than I said that members of the committee came there and said nothing against it.

Q. You considered you were acting entirely under that vote?

A. Entirely.

Q. Did you hear the conversation before this vote was passed?

A. I heard the conversation about two thousand five hundred dollars and five hundred dollars; those sums were mentioned, but there was nothing decisive.

Alderman CLARK. — You say that when you got to grading about the monument the ground was covered up with stone, and you found that the whole hill had to be changed?

A. We cut down three feet and a half where that work stands to-day.

Alderman CLARK. — I want the committee to understand that when he came to do the work that was necessary to grade the ground around the monument, he found the whole grade of the hill had to be changed. He has so stated, and has so stated to me before. Of course that involved a greater outlay.

Mr. GALVIN. — Nobody could give any idea of the cost if he had not taken the grades before the work was commenced.

Mr. WILBUR. — Did you have any idea of what it was going to cost before the work commenced?

A. I thought it would take between five and six thousand dollars.

Q. Did you expect it would cost that?

A. No, sir; not till I got the grades, and then I found that it threw the hill out of shape.

Q. You mean to say that after commencing the work one thing developed another, and then you could see the necessity of making this extensive grading?

A. That is the idea exactly; when we got twenty feet graded, where we commenced twenty feet from the monument, it was three feet lower than the walk is now. That had to be filled with rocks and gravel; and you see that the grounds were in a bad condition otherwise. It would have to be done either this season or next year, and you cannot avoid it.

Mr. Vose. — When you had graded about a quarter of an acre, or fifteen thousand feet, as I suppose, in the first place, it then became necessary to grade eighty-six thousand feet additional.

A. That is it. One gentleman came up there, and I asked him how much ground there was graded, and he says it is not a quarter of an acre; and I said, if your judgment is as bad upon other matters, it is not good at all.

Alderman Clark. — Was the price paid for plants any more this year than it was last year when it was under the charge of Alderman Bigelow and Councilman Curtis?

A. I guess, if you compare the bills of this year and last, you will find them to be about exactly the same, and I think you have got better plants this year, as the grounds will testify themselves, and any one will testify who has seen the public grounds this summer.

Gentlemen, you must be aware that there is no money in raising plants, and no man will raise plants unless there is a market for them. It is too much work for a little money. Peter Henderson, or any other practical man, can make money by raising plants at twenty dollars a thousand. So can I. You cannot see the reason for it, not being posted. You have got to have a big house, bounded on each side and underneath with hot-water pipes. You can fill your beds five or six times during the winter months; some of those plants are sold. There is a good business in them. They are sent in lots to different parts of the country, and some are actually sent by mail. You can buy those plants for one dollar a hundred, twenty dollars a thousand, and thirty dollars a thousand.

But where you grow plants in four-inch pots it is a different thing. You put nine plants in a square inch of ground, and after you take up those nine plants they will fill up a space two feet square; and so when you come to bed them out they want a foot apiece to grow in. No florist can make money unless he has the space to grow plants in. As Mr. Strong made the remark to me, to grow plants at that price he will come out at the little end of the horn.

Mr. Howes. — I understood Mr. Clark to ask you whether, when you made that grade around the Soldiers' Monument, you found that some further filling and grading had to be done; and you said yes, as I understand?

A. It is a fact.

Q. After grading a certain amount, you found it changed the whole contour of the hill?

A. I thought after doing that amount of grading it was worse than if I had done nothing at all. There was no attempt to make anything ornamental about it.

Q. Did you consult any one of the committee in reference to going any further with it?

A. I did not think there was any occasion for it, from the orders I had received.

Ald. CLARK. — You worked upon the order that Mr. Howes and the other members of the committee voted upon?

Mr. HOWES. — We did not vote intelligently upon it.

Ald. CLARK. — I don't know whether you voted intelligently or not.

Q. Mr. WILBUR. — How much will it cost to grade that hill according to your ideas?

A. There is another side of that hill, if you want to grade it. The west side ought to be graded in that same way. It would take about six thousand dollars more to complete it.

Q. But who stopped you on this work?

A. We stopped when we found we could not get money in the Council. When we didn't get the money, Alderman Clark told me to suspend work and discharge the men; I didn't discharge the men until the meeting of the committee was called.

Ald. CLARK. — The committee discharged them.

Mr. WILBUR. — What is your idea of what it will cost to carry out what you have commenced?

A. Counting all, it will take one thousand dollars to carry out the plan of the hill which we contemplated.

Ald. VILES. — Does that include the west side?

A. No, sir, it does not.

The CHAIRMAN. — How much will it cost to grade the west side?

A. If I had my way I would grade the walk going up the hill and have it in grass all through there. It will cost probably in the neighborhood of one thousand five hundred dollars.

Q. Is that walk dangerous to travel up and down?

A. It is not much travelled now and in the winter season. In the summer season it has a bad effect upon the hill. It is unsightly.

Mr. WILBUR. — If you had had money enough you would have gone on and made the improvement?

A. If I had had an appropriation of some twelve thousand dollars.

Q. But under the order you received?

A. But there was no money in the order.

Q. I mean under this vote passed by the committee, authorizing you to do the necessary grading around the monument?

A. If we had had the money we would have finished it.

Q. But you would consider yourself authorized, under that vote, to go on; and you had no one to tell you to stop?

A. I consider it just as if you had told me to erect a good

building, and make a good job, and do all that is necessary. That is about the same as passing an order to do all the work necessary to be done on that ground.

Q. Have you ever had any houses repaired ,— old buildings?

A. I am not fortunate enough to own any.

Q. I wanted to ask you this for this reason: you say when you commenced there, you didn't know anything about how much money you were going to lay out?

A. No, sir; I did not.

Q. And as you went along something new developed?

A. As we went along every day, it disarranged the hill more.

Mr. BROWN. — You didn't consider that, under that order, it contemplated the grading of the west side of the hill?

A. No, sir.

Q. And you never would have gone on to the west side of the hill without a vote of the committee?

A. No, sir.

Alderman CLARK. — Wouldn't you consider it a part of the necessary grading?

A. No, sir.

Councilman CLARKE. — In employing mechanics to do a job of repairing don't you often find that it costs two or three times as much as you expected it would in the first place?

A. Yes, sir; as a general thing it does.

Q. And when the bills come in they are larger than you at first thought they would be?

A. Yes, sir.

Q. And at the same time the work is satisfactory. Now, supposing that the committee had limited you to an expenditure of one thousand five hundred or two thousand dollars, wouldn't it virtually have resulted in the money being thrown away?

A. Yes, sir.

Q. If you had been limited, would —

A. You couldn't have done anything there, with that amount of money, satisfactory to the committee or the citizens.

Q. If you tried to make the hill look in a respectable manner on that amount, would it virtually have to be done over again?

A. Yes, sir; it would have been virtually thrown away.

ALDERMAN CLARK. — *Resumed.*

Alderman CLARK. — I have given my testimony, and I am happy to have the fact established that that vote was passed. I wish to state to the Committee that it is my opinion — but I don't know it to be a fact, though I think it is — that the motion was made by Mr. Howes, to authorize the superintendent to do the necessary grading.

Now, a great deal has been said about the prices of rhododendrons. A day or two ago I received a letter from Mr. Kelsey, which was wholly unexpected, for I never wrote him a word in my life, and I had no idea he was going to send me a communication; but he sent me a letter, and in it he says: —

I have furnished Greenwood Cemetery and several other corporations and individuals with the same grade of plants at the same price, and they have been satisfactory in every instance. Furthermore, in reference to the price of plants, especially rhododendrons, I would call the attention of your committee to the wholesale catalogue of S. B. Parsons & Sons, of Flushing, N. Y. I quote as follows, "Hardy grafted varieties with buds, one hundred and fifty dollars per hundred."

I mention this firm, as they stand at the head of the growers of this fine plant in this country. When you consider that the plants I furnished were two or three feet (some larger), that they were full of flower-buds, that many or most of them were grown from layers, not grafted (therefore more valuable), that price was reasonable, to say the least. The wholesale catalogue referred to is to the trade. Their prices to outside parties are from twenty-five to fifty per cent. higher.

Signed F. W. KELSEY.

So much for the price of rhododendrons. It has been stated here that Mr. Galvin said we might as well import them ourselves; but these were simply purchased as an experiment.

Mr. HOWES. — Some statement has been made here which might seem to reflect upon me.

Alderman CLARK. — I did not offer any reflection on the gentleman.

Mr. HOWES. — I should like to state that, if I made that motion, the inference drawn from the motion was entirely different from what the mover intended should be drawn from it.

Alderman CLARK. — I can only say that it is my impression. Mr. Howes usually sat at my right hand there —

Mr. HOWES. — And made all the motions.

Alderman CLARK. — All proper business was done in the committee-room and I have no doubt we discussed the grading of the hill there for an hour or an hour and a half.

Mr. RUFFIN. — Does that conclude the verbatim testimony?

The CHAIRMAN. — We have examined all the witnesses that I am aware of. The hearing is now closed.

Eighth Session.

FRIDAY, NOV. 23d, 1877.

The committee met at five o'clock, P.M., all present except Alderman Dunbar.

Fred. W. Kelsey having been notified, at his request, of the meeting of the committee, he appeared.

The CHAIRMAN. — Mr. Kelsey, this committee have been through a very long investigation, and have heard as much about rhododendrons as they really desire to hear. They have already got printed a volume that will make nearly two hundred and fifty pages; but if you have anything special to say that will not occupy more than ten minutes, and will be brief, the committee have decided to hear you. The impression conveyed by a great many gentlemen outside was that the City of Boston paid a much larger price for rhododendrons than ought to have been paid, though their testimony was contradicted to some extent by Mr. Harris, the gardener of Mr. Hunnewell, and others. The committee would be very happy to hear anything you have to say.

Alderman VILES. — While I have no objections to hearing Mr. Kelsey, I don't want it to be understood that this is a private hearing, and that after closing the public hearing we gave Mr. Kelsey a private one.

Alderman O'BRIEN. — If Mr. Kelsey had appeared at any of the public hearings he would have been heard, as we heard lawyers, experts in horticulture, and others.

[Mr. Galvin, Superintendent of Public Grounds, requested permission to be present during Mr. Kelsey's statement, and it was granted.]

STATEMENT OF FRED. W. KELSEY.

Mr. KELSEY. — Yes, sir. Well, I will say, Mr. Chairman and gentlemen, that I am very sorry I was not present.

Alderman VILES. — Do you reside in Boston?

A. I do not, sir. I also regret that I am not able to make a speech, because I am not accustomed to making speeches, and many things I should say I would not be able to say on that account. Another disadvantage under which I labor is, I am not informed about what has occurred. The first I heard of the investigation was about the first of November. Mr. H. W. Sargent wrote me the investigation was going on, and sent a communication, asking for information about the bill of Galvin Bros., and my bill, and sent me a clipping from one of your papers; and that, with two or three clippings, is all that I knew of the matter until I came here; so that I labor under the disadvantage of really not knowing anything about what has been said.

Alderman VILES. — Has anybody besides Mr. Sargent told you about what was going on?

A. Not a particle. I saw Mr. Morrill yesterday, and I have

seen Mr. Clark; but there has been no general information given me on the subject at all that I could consider reliable.

Q. No one else has written to you and informed you of the facts?

A. Not at all.

The Chairman. — During this investigation a gentleman named French, and quite a number of others, including Mr. Parkman, President of the Horticultural Society, spoke about importing rhododendrons of very select varieties for eighty cents apiece, and also some of them even at fifteen dollars a hundred. The result of it was, to give you more notoriety in connection with the rhododendron trade than you could possibly get in any other way.

A. Not knowing what was said, I inquired of Mr. Lee, day before yesterday, as clerk of the committee, if I could look at the proceedings of this committee, so that I could get at definitely what has been said; of course it was not in his power to grant it; so, without this information, all I could say to you, as representatives of the City of Boston, is simply as to the bare facts in reference to this transaction, if you wish to hear it; and I will make it as brief as possible. Aside from that, if you had time, I should like to go into a formal discussion of rhododendron matters, as to the cost, risk, duty, etc.

Mr. Ruffin. — What did you charge the city?

A. I charged one dollar and fifty cents each.

Q. And what varieties were there?

A. The Everestianum, Charles Dickens, Album Grande de Florum, the Album Elegans, I think, and I think the Roseam Elegans and Roseam Superbum. I could not give the names of all without referring to the memorandum; my impression is that these eight or nine of the best named varieties, I believe there were [turning to Mr. Galvin].

Mr. Galvin. — That was correct.

Mr. Ruffin. — Was that a fair price?

A. Yes, sir, it is a fair price, in this way: it is as low, I venture to say, as you can procure first-class plants of that quality, delivered in Boston by first-class, responsible parties. I wish to say, distinctly, of rhododendrons, azalias, camellias, and orchids, that in the whole history of plants, both commercially and as families, there is no class of plants in which the value depends so much upon the quality, as in those four kinds. You can buy rhododendrons in Europe all the way from two pounds a hundred to fifty pounds a hundred, — the difference in price depending entirely upon the quality and variety. The plants I furnished the city were from two to three feet high; they had, on an average, I think I may safely say (although I did not count them), from ten to fourteen flowering buds each. There were six or eight of the best varieties. They had been carefully grown and transplanted, and the price, as I have stated, was one dollar and fifty cents each, delivered to the city, I paying the duties, brokerage, the transportation over in the steamer, the custom-house fees, and the whole expense. More than that, this is my regular catalogue rate, as I will show you, Mr. Chairman and gentlemen, if you wish [exhibiting

the catalogue]. The named varieties, from one and a half to two and a half feet, are twenty dollars a dozen and one hundred and fifty dollars per hundred. Seedlings are down at six dollars a dozen and fifty dollars a hundred. Specimen plants are three dollars each and upward. I mention these prices in my catalogue from the fact that I come in competition with others. These catalogues, as you are all aware, are sent promiscuously all over the country. I have been fortunate in securing much of the best trade in the country, my business being almost entirely with parks, cemeteries, and large estates. These catalogues go all over the country, and I mention the prices because I come in competition with others. They specify my rates, and you can judge for yourselves whether, if the price charged was twenty-five, fifty, or one hundred per cent. higher, I would publish it in that catalogue.

Ald. VILES. — Don't you make lower rates when a customer buys five hundred?

A. I have given my rates to the committee. I never have sold any plants of this character for less than a hundred and fifty dollars per hundred. I have sold a large number to the government for the national cemeteries, and to some of your best citizens here, among them Mr. Henry Lee, Mr. Franklin Haven, and a number of others that I don't think of this moment; and this is the first instance I ever heard of fault being found either with the quality or price of the goods.

The CHAIRMAN. — What about azalias?

A. Azalias I don't quote by the quantity, but I will show you [turning to the catalogue]. From one dollar to two dollars each. Then there is a class of azalias which are not hardy, known as the Indian. These are for growing under glass; but the price does not vary materially; it doesn't in Europe, and I don't think it does in Boston with the florists. Now, there is one other point — if you please not to restrict me to ten minutes. There is a question that naturally suggests itself in connection with this subject, and that is, where these different objections came from. Mr. Parkman is one of the most reliable citizens in Massachusetts; and, moreover, he is not a gentleman who would make a statement but what he believed to be true for all the rhododendrons in the United States; at least, I have great respect for Mr. Parkman as a gentleman and a historian. Now, the question comes, why is it that the committee received estimates of the value of rhododendrons all the way from fifteen cents to three dollars apiece? I will tell you why. One of the reasons, I think, is, that Mr. Parkman may have considered those plants seedlings and Ponticum varieties; and if that were true, their price would be anywhere from two to five pounds a hundred. You can buy them for that price in France as well as in England; but you cannot get them for that in this country. The next reason that this impression may have come about is, that some gentlemen here — I don't know Mr. French — but some gentlemen here in Boston have received especial favors from those growers in Europe in the way of prices. While at Mr. H. W. Sargent's residence last winter, he called my attention to one of Mr. Waterer's invoices, and said, "Can you compete with those

rates?" And I said, "No, sir, unless you want me to give away plants." He had evergreens worth from two to three shillings [fifty to seventy-five cents], which are sold for two and three dollars. I might tell why this is. Mr. Sargent, Mr. Hunnewell, Mr. Payson, and a few others I might mention, rather stand at the head of arboriculturists in the United States; growers in Europe are like growers in this country, — they want the influence of those gentlemen. For that reason azalias, rhododendrons, and many of the finest orchids, and others of the finest plants in cultivation, are furnished to those gentlemen at the bare cost of cultivating.

The Chairman. — They send them to those men at first cost?

A. I don't say that they do it yearly or periodically; but I say it is a fact that it is, to some extent, a custom in the trade to furnish plants to certain parties at nominal prices, in order to secure their influence. I don't know that Mr. French has ever been favored in that way, because I don't know him; but where gentlemen are favored in that way they get the idea that those rates at which they buy are the rates for the trade; and that is where this impression may have come from.

Ald. Viles. — Do you think the City of Boston could make those special rates with Mr. Waterer?

A. It depends on circumstances. I think I could make better rates than the city could. I have the advantage of this trade with parks, cemeteries, and large private estates, which is a trade that nurserymen want to get hold of. I am an *importer*, *dealer*, and don't care anything more about nurseries than you do. My interests are with my *customers*.

I was speaking about the influences brought to bear upon the growers. I have my own influence; I am a regular buyer, and they know I have this class of trade and pay cash for everything. Now, my idea is that I can buy as cheap as any one. Now, if Mr. Waterer should say that Boston Common and Public Garden ought to have the finest plants in the world, and that it would be an advertisement for him to furnish them, he might put the plants at half rates. On the other hand he might say the City of Boston is good pay, and he ought to have a good price. I don't know what he would do; but I may state, commercially speaking, that that is the only way to get at these matters. You can only judge of the prices of plants by their *commercial value*. You, as a committee, cannot say that if the City of Boston paid more for plants than she would have done if she had bought through Mr. Hunnewell or John Smith, — favored individuals, — therefore she has been swindled. I think the thing is whittled down to this point: What can they be bought for at the trade price?

In that respect, I think any disinterested party will say that the plants were procured at a good, fair price; but really *I* paid an extra price to get better plants.

The Chairman. — What was the size of the plants?

A. Two to three feet. I regret that I have not the memorandum with me.

Q. Mr. French read from Mr. Waterer's catalogue of the prices the same as you published; for instance, from five to ten pounds a hundred?

A. Yes, sir.

Q. That is the price delivered in London?

A. No, sir; that is the price at the nursery. But the trouble with Mr. French and others, where this impression has been created, is that the plants he speaks of are not the same size as those I furnished. Mr. Waterer may have sent some to Mr. French. I don't know how much he may have favored him, but I infer that he has favored him a little. Mr. Waterer may send John Smith or Mr. French plants as good as those at ten pounds a hundred; but the plants he sends out to the trade and others at that rate are not as good as these in size and quality. I specify in my catalogue that all the plants furnished by me are from two to three feet. I intended to have catalogues of the different nurseries here to show you. This [showing a catalogue] is Parsons', at Flushing. I call your attention to this catalogue of Parsons for this reason: he is the largest grower of rhododendrons in the United States; has the best stock in rhododendrons of any nurseryman or dealer in the United States. He is considered the best authority in this country, and he wrote me a few days ago that his sales were nearly doubled this season, on, perhaps, account of the exhibition at the Centennial. I bring his catalogue here to show to you, for that reason. Here is the point: Rhododendrons, a cheap variety, that perhaps Mr. Parkman referred to, "twelve to eighteen inches, fifty cents each." Then come the hardy kinds, "twenty inches, one dollar each;" and, "with flower-buds, one dollar and fifty cents each;" and then he quotes, "without flowering buds, eighteen to twenty-four inches, one dollar and fifty cents each;" and "with flowering buds, eighteen to twenty-four inches," which you will remember is six to eight inches smaller than those I furnished the city, "two dollars each." He furnishes those by the hundred at one hundred and fifty dollars to one hundred and seventy-five dollars per hundred; but mind you, these are his regular rates, two dollars apiece. Those are about the same grade of plants I furnished at one dollar and fifty cents apiece, — two to three feet.

The CHAIRMAN. — Will you explain this paragraph? —

Advantageous arrangements. By this plan there will be found a larger margin of profit than anywhere else.

A. I have no objection to that, and I like to have gentlemen in this or any other business make all they can in it. We don't do business for the fun of the thing, and no business is *worth engaging in* that does not pay a first-class profit.

Mr. WILBUR. — Something has been said that you gave a guaranty for these plants.

A. I guaranteed them in this way; I morally guarantee all the stock I sell. Having a first-class trade, if the plants die I replace one-half of them for nothing. If I send plants here (I would say to the committee) I am as much interested in them as you are, and I will make them right. That is the way I do business. There is another thing I guarantee: I guarantee that the plants should be delivered on the Public Garden in good condition. If

they had gone to the bottom of the ocean I would have stood the loss, and furnished other plants.

Mr. Wilbur. — Did they come all right? [To Mr. Galvin.]

Mr. Galvin. — The plants were received in good condition, not a dead plant among them; nor we did not lose one this summer. But of course the trying time is to come now.

Mr. Wilbur. — When is the worst time for them? Do they generally die the first year, or the second?

Mr. Kelsey. — These rhododendrons will not die at all if they are properly taken care of. They are hardy, and all they want is a fair show. I have understood there is hardly a plant of the five or six hundred that has died so far.

Mr. Galvin. — Not one.

Mr. Kelsey. — Mr. Hunnewell has plants on his estate, and Mr. Rand had plants on his estate that he used to have, that you have to go up on a ladder to get the flowers off.

Alderman Viles. — If the city should want five hundred rhododendrons this fall, would you give better terms than you did last spring?

A. I wouldn't agree to without first having a correspondence with parties in Europe. I have already contracted for several hundred to be delivered next spring.

Mr. Wilbur. — Are those plants you give hardy varieties?

A. Yes, sir. The Charles Dickens is a new variety.

Q. Have you furnished plants to any amount to any parties in Boston and vicinity?

A. I sent quite a large quantity to Mt. Hope Cemetery last year.

Mr. Vose. — Did you get two dollars apiece?

A. No, sir; I had exactly the same price as to the City of Boston and that I did to private persons.

Mr. Wilbur. — Were these the same varieties sold to the City of Boston?

A. Exactly the same thing; and some of the plants were —

Q. Were they imported at the same time?

A. Some came to New York and some to Boston. It was the same season, but whether they came from the same lot I don't know. I had a lot from New York and from Belgium, and some from England, and without looking up the information I don't know.

Q. Do you understand that Mr. Sargent and Mr. Hunnewell have special favors?

A. Yes, sir.

Q. You state it as a fact?

A. Yes, sir.

Q. Do you say that they have any cheaper or better rates than you have?

A. I don't know. I cannot state. I say you cannot tell about these growers. They want to get business. Mr. Waterer used to send Mr. Rand plants, and now he might say his influence was not worth a continental, and would charge him as much as anybody else.

Alderman VILES. — Do you believe Mr. Galvin, our superintendent, could import rhododendrons for the City of Boston at the same price that you can?

A. I don't think he can.

Q. He might get special favors?

A. I don't know. I cannot tell how much Mr. Waterer would consider the influence of the City of Boston worth. But my trade is established, and if he gets my trade he sells me two or three thousand plants every season; and if he deals with the City of Boston he wouldn't get more than one, if they were not satisfactory. Unless there is some outside influence, I don't know how he could get better rates.

Mr. WILBUR. — You said Mr. Sargent and Mr. Hunnewell had special favors, and it would seem to convey the idea that they were given low rates for the reason that they had large influence; now you don't mean to say that they can buy any cheaper than you can?

A. I don't think they can buy as cheap. I will say just as I think. I don't know how much inducement Mr. Waterer has offered to those men to get their influence; and it is none of my business if Mr. Waterer chooses to give Mr. Hunnewell plants for fifty cents that are worth two dollars. I infer from invoices shown me that Mr. Waterer had given special favors.

Q. This is your special business?

A. I don't do anything else.

The CHAIRMAN. — Mr. Kelsey has a large catalogue of trees, flowers, and plants generally.

Mr. WILBUR. — It has been stated that Mr. Kelsey was very persevering, and used all fair means to make a trade, — in other words, he is a pretty good talker, and stuck to business pretty snug to make a trade.

Alderman VILES. — That he even took the Committee on Common to the Revere House.

Mr. WILBUR. — And in connection with this trade the committee were treated to a supper at the expense of Mr. Kelsey. Now, as long as Mr. Kelsey is here, I only wanted to bring out this fact. Is that the way you do business? When you get hold of a customer do you generally stick to him and hang to him until you make a trade with him?

A. I might say to you, gentlemen, that that is getting at the secrets of the trade; but I will say, candidly, there are two ways of doing business: one way is to let it run itself, another is to run it yourself. But the condition of all trade for the last three years has generally been such that if a man didn't crowd his business it would soon crowd him to the wall; so, being naturally conservative, I am in earnest, and when I buy trees I buy as earnestly as I sell them.

But in connection with this dinner business, — and that is one reason why I wanted to see you, — I will say that, so far as my business relations are concerned, I have nothing to say against Mr. Galvin or the Department of Common and Squares, — nothing to say at all. My transaction with the Committee on Common

and Squares was perfectly legitimate. I will tell the whole thing in a word: I came here almost an entire stranger; there wasn't a man of them all — from Alderman Clark to the latest elected member of the City Council — that I had ever met. I had come here, back and forth, for three years, and when I came here three years ago it occurred to me that there was no one thing Boston needed more than some fine plants, such as rhododendrons and azalias. The next thing was to go to work and get the business. I spoke to Mr. Sargent about it before I knew anything about the Common and Squares Committee. Mr. Sargent said they were wonderfully behind here; that he had written some articles in the papers about its being a hodge-podge garden, etc., and he wished some one would take hold of it. The next move I made was to get acquainted with the committee. I saw Mr. Galvin, and he said it might be a good thing if I could sell the plants. When I went to the committee, I found — and you understand the fact as well as I — that there wasn't a single member of that committee that had full knowledge of such things, and the only way was to see the committee together, and have time to go into a full explanation. They are business men, coming down town say at nine o'clock, and between business and politics are bored and bothered until evening. Now, as a first-class business man, I say the only way that I have a right to ask first-class business men to listen to me is to take an opportunity when they have a moment at liberty, and entertain them. Well, the first time I saw them was at the Revere House, and I got five minutes. Well, five minutes is no time to talk about arboriculture. When I went into the waiting-room at the Revere House you can imagine that there was no arrangement for talking about rhododendrons. I said to Mr. Clark, "When can I get the committee together?" He said, "The only time is in the evening." I said, "If there is no other way, I will entertain them." When the committee were called together it was in this room [office of Clerk of Committees], and I suggested that, in view of the time, if they would go over to Parker's I would entertain them; and they did so, and for an hour and a half we were discussing that matter; and the main thing consulted about at this meeting was whether I could sell the plants as cheaply as anybody else, and whether the city wanted them; and I told them, "Gentlemen, I don't want you to do a thing that won't be backed up by the citizens and tax-payers of Boston." After the conversation was over, Mr. Clark said that they wanted more time to consider it; would do nothing that night, but that the matter would be referred to a sub-committee. That sub-committee consulted Mr. Rand and others, and had to report back to the whole committee to buy the plants; and until the vote was passed by the full committee I didn't know whether I was going to have any order for the plants at all; and that dinner had been paid for out of my own pocket, and charged to profit and loss. I don't think you will find a single member of the committee but will tell you that that dinner had nothing to do with it. I called upon them as business men, and as a business man I said I wouldn't ask them to listen to my yarns without entertaining them.

Mr. WILBUR. — Would you have expected to get the order without entertaining them?

A. That is the fault of our political system. Mr. French and Mr. Hunnewell are not bothered about such matters all day, and they can sit down and talk about horses, rhododendrons, or anything else. But here are business men, who come down to business in the morning to the City Hall, and are bored and bothered to death at noon, and at night want to get home to their families; and as a business man I had no right to ask them to listen to me without entertaining them respectably at least. That is the whole story, so far as I am concerned, and as it is now my dinner hour, gentlemen, I bid you good-evening.

JOHN GALVIN. — *Resumed.*

Mr. RUFFIN. — I wanted to know whether Mr. Nawn, Mr. Coyle, and Mr. Hayes were the only persons who furnished the loam?

A. They were the only persons. If you have got the report, I don't know how much you base your loads upon.

The CHAIRMAN. — Twenty cubic feet to the load.

A. Well, in the first place, they won't measure that. There were double and single carts, and any one knows they won't measure that. A double cart won't measure more than thirty feet, and I don't think they will all average more than fourteen or fifteen feet. That is my impression.

Mr. WILBUR. — That is one of the important facts we want to get at, and it is one of the important points; for the city or anybody else loses money that fills by the load.

A. Yes, always. That is all these carts would measure, if you measured them.

Adjourned to Friday, Nov. 30th.

CITY OF BOSTON.

City Document No. 88.

AUDITOR'S MONTHLY EXHIBIT.

General and Special Appropriations for 1877–78.

Office of the Auditor of Accounts,
City Hall, November 5, 1877.

To the Honorable City Council: —

Gentlemen, — The undersigned, in compliance with the third Section of the Ordinance on Finance, herewith presents an Exhibit of the General and Special Appropriations for the present financial year of 1877–78, as shown in the books in his office, November 1, 1877, including the November draft, — being seven monthly payments of the financial year, — exhibiting the original appropriations, the balances brought forward from the year 1876–77, the amount expended, and the balance of each unexpended at that date.

Respectfully submitted,

ALFRED T. TURNER,
Auditor of Accounts.

APPROPRIATIONS.

Object of Appropriations.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Additional Supply of Water	[1]$1,352,571 98	$695,659 59	$656,912 39
Advertising	2,500 00	825 59	1,674 41
Armories	22,000 00	9,863 32	12,136 68
Assessors' Department	92,167 00	71,243 37	20,923 63
Auditor's Department	15,650 00	8,852 82	6,797 18
Back Bay Streets and Avenues	[2]3,084 61	2,346 86	737 75
Beach Street	[3]594 00	148 50	445 50
Bells and Clocks	3,580 00	1,528 89	2,051 11
Board of Health	68,900 00	31,429 63	37,470 37
Boston Harbor	5,000 00	2,368 93	2,631 07
Branch Library, W. Roxbury Dist.	[4]10,000 00	6,711 37	3,288 63
Bridges	53,293 00	29,971 24	23,321 76
Broadway Extension	[5]80,680 21	. . . .	80,680 21
Burnt District	[6]352,800 20	889 28	351,910 92
Cedar Grove Cemetery: Add Revenue received, $8,688 31	[7]5,217 75	13,049 61	856 45
Chelsea Bridge	[8]141,022 46	25,306 15	115,716 31
Chestnut Hill Driveway	3,500 00	2,942 13	557 87
City Debt	672,700 00	. . . .	672,700 00
City Hospital. Add Revenue on Funds, $251 40	[9]127,000 00	74,247 65	53,003 75
City Registrar's Department	9,650 00	4,066 29	5,583 71
Cochituate Water Works: Revenue, $279,047 61; Running Expenses, $149,101 68; Interest, 313,273 83; Proportion paid under contract, 5,884 34	. . . .	468,259 85	($189,212 24 prov. for.)
Collector's Department	42,600 00	24,602 48	17,997 52
Common, etc.	[10]80,100 00	65,078 50	15,021 50
Com. Council Chamber ventilation,	[11]3,000 00	. . . .	3,000 00
Commonwealth Avenue, Fencing and Grading,	[12]11,555 46	3,328 67	8,226 79
Completion West Chester Park, etc.	150,000 00	77,474 68	72,525 32
Contingent Funds:			
Joint Committees	4,000 00	2,539 17	1,460 83
Mayor	3,000 00	283 75	2,716 25
Board of Aldermen	3,000 00	1,917 65	1,082 35
Common Council	3,000 00	1,243 67	1,756 33
County of Suffolk	365,000 00	152,737 81	212,262 19
Deeds, Real Est. Advertising, etc. Add Revenue received, $15,571 17	[13]9,176 60	15,253 08	9,494 69
East Boston Ferries	165,000 00	101,130 81	63,869 19
Carried forward	$3,861,343 27	$1,895,301 34	$2,458,812 66

[1] Brought from last year, $1,352,571 98
[2] Brought from last year, 3,084 61
[3] Brought from last year, 594 00
[4] Transferred from Reserved Fund, 10,000 00
[5] Brought from last year, 80,680 21
[6] Brought from last year, 352,800 20
[7] Brought from last year, 217 75
[8] Brought from last year, $26,022 46
[9] Brought from last year, 2,000 00
[10] Transferred from the Reserved Fund, 15,000 00
[11] Transferred from the Reserved Fund, 3,000 00
[12] Brought from last year, 5,555 46
[13] Brought from last year, 9,176 60

OBJECT OF APPROPRIATIONS.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward	$3,861,343 27	$1,895,301 34	$2,458,812 66
Eastern Avenue and Bridge . .	[1]13,569 79	. . . .	13,569 79
Engineer's Department . . .	25,479 00	13,411 37	12,067 63
Engine House and Land, Fulton St.	[2]45,000 00	. . . .	45,000 00
English High and Latin School Buildings	. . . .	2,000 22	($2,000.22 prov. for.)
Evergreen Cemetery: Add Revenue received, $298 00	[3]1,202 85	1,234 09	266 76
Fever Hospital, Gallop's Island .	2,500 00	2,073 22	426 78
Fire Alarm Telegraph . . .	[4]20,642 00	9,125 47	11,516 53
Fire Department	563,000 00	370,947 97	192,052 03
Francis Street School-house . .	[5]3,909 72	. . . .	3,909 72
Grammar School-house, Brighton District .	[6]45,974 25	. . . .	45,974 25
Grammar School-house, Dorchester-Everett District	[7]19,194 97	19,058 42	136 55
Grammar School-house, Egleston Square	[8]10,397 13	2,207 10	8,190 03
Grammar School-house, Washington Village	[9]80,775 00	28,148 31	52,626 69
Health Department . . .	365,000 00	205,804 21	159,195 79
Home for Poor, Deer Island . .	[10]147,500 00	. . . .	147,500 00
Improved Sewerage . . .	[11]46,256 04	10,234 05	36,021 99
Incidental Expenses: Add income of Foss and Babcock Funds, $409 72	87,000 00	66,779 70	20,630 02
Inspection of Buildings . . .	[12]18,600 00	10,146 02	8,453 98
Interest and Premium . . .	1,698,000 00	872,701 34	825,298 66
Lamps	490,000 00	239,688 29	250,311 71
Law Department	18,440,00	9,716 82	8,723 18
Liquor License Expenses: Add Revenue rec'd, $260,511 00	[13]2,523 48	*74,914 21	188,120 27
Markets	9,295 00	5,034 10	4,260 90
Memorial Monument, Boston Common	[14]52,500 00	51,800 00	700 00
Mount Hope Cemetery: Add Revenue received, $10,227 98	[15]16,526 61	23,722 02	3,032·57
Mt. Washington Avenue Bridge .	[16]8,000 00	66 88	7,933 12
Mystic Sewer	[17]203,755 68	25,178 74	178,576 94
Mystic Water Works: Revenue, $89,643 11; Running expenses, $67,603 06; Interest, 34,560 00; Proportions paid under contracts, 11,058 17	. . . .	113,221 23	($23,578.12 prov. for.)
Carried forward . . .	$7,856,384·79	$4,052,515 12	$4,683,308 55

[1] Brought from last year,	$13,569 79	[10] Brought from last year,	$147,500 00
[2] Brought from last year,	45,000 00	[11] Brought from last year,	20,256 04
[3] Brought from last year,	202 85	Loan,	26,000 00
[4] Brought from last year,	1,000 00	[12] Transferred from the Reserved Fund,	4,600 00
[5] Brought from last year,	3,909 72	[13] Brought from last year,	2,523 48
[6] Brought from last year,	5,974 25	[14] Brought from last year,	52,500 00
[7] Brought from last year,	16,194 97	[15] Brought from last year,	1,826 61
[8] Brought from last year,	6,897 13	[16] Brought from last year,	8,000 00
[9] Brought from last year,	80,775 00	[17] Brought from last year,	203,755 68

* Of this amount $63,675 00 were paid to State, being one-quarter of receipts for licenses, and $11,239 21 were expenses incurred under the law.

Object of Appropriations.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward, . . .	$7,856,384 79	$4,052,515 12	$4,683,308 55
Neponset Bridge	[1] 19,000 00	75 93	18,924 07
New Engine Houses . . .	[2]860 67	568 37	292 30
New Lunatic Hospital . . .	[3]101,062 97	. . . .	101,062 97
Northampton Street District . .	[4]20,532 27	15,433 43	5,098 84
Old Claims	2,000 00	330 37	1,669 63
Overseers of the Poor . . .	141,400 00	37,357 84	104,042 16
Park Department	[5]2,159 92	942 91	1,217 01
Paving, etc.	850,000 00	553,631 22	296,368 78
Play grounds	[6]2,000 00	320 00	1,680 00
Police	841,300 00	486,445 06	354,854 94
Primary School-house, City Point .	[7]15,000 00	. . . .	15,000 00
Primary School-house, Sherwin District	40,000 00	7,607 79	32,392 21
Printing and Stationery . . .	27,000 00	13,257 58	13,742 42
Prison Point Bridge . . .	[8]2,629 03	2,256 05	372 98
Public Baths	25,000 00	15,847 17	9,152 83
Public Buildings	83,850 00	50,172 74	33,677 26
Public Institutions, viz.:			
House of Industry . . .	[9]184,515 24	96,183 95	88,331 29
House of Correction . . .	91,150 00	50,095 54	41,054 46
Lunatic Hospital . . .	59,720 00	28,353 16	31,366 84
Pauper Expenses . . .	80,600 00	42,936 57	37,663 43
Steamboat "J. Putnam Bradlee"	18,170 00	4,745 57	13,424 43
Office Expenses	7,350 00	1,461 05	5,888 95
Marcella Street Home . .	25,000 00	13,468 53	11,531 47
Almshouse, Austin Farm . .	18,000 00	6,334 00	11,666 00
Almshouse, Charlestown District	9,000 00	3,974 63	5,025 37
Addition to building, Rainsford Island	16,000 00	4,930 48	11,069 52
New Piggery, Deer Island . .	8,500 00	7,476 12	1,023 88
Public Lands	6,000 00	1,823 22	4,176 78
Public Library	[10]120,626 00	69,161 83	51,464 17
Quarantine Department . . .	14,400 00	8,963 66	5,436 34
Registration of Voters and Election Expenses	22,200 00	10,450 23	11,749 77
Reserved Fund	[11]243,500 00	. . . .	243,500 00
Salaries	31,950 00	18,433 35	13,516 65
Schools and School-houses, viz.:			
School Instructors . . .	1,115,520 00	671,554 05	443,965 95
School Expenses, School Com. .	245,000 00	165,140 93	79,859 07
Salaries Officers, School Com. .	51,000 00	33,827 90	17,172 10
School-houses, Public Buildings .	133,000 00	85,903 59	47,096 41
Carried forward . . .	$12,531,380 89	$6,561,979 94	$6,848,839 83

[1] Brought from last year, $19,000 00
[2] Brought from last year, 860 67
[3] Brought from last year, 100,628 21
Transferred from House of Industry, 434 76
[4] Brought from last year, 532 27
Transferred from Reserved Fund, 20,000 00
[5] Brought from last year, 2,159 92
[6] Transferred from the Reserved Fund, 2,000 00
[7] Brought from last year, 15,000 00
[8] Brought from last year, 2,629 03
[9] Transferred to New Lunatic Hospital, 434 76

[10] Brought from last year, $500 00
[11] Transferred to Branch Library West Roxbury District, 10,000 00
Common, 15,000 00
Com. Council Chamber ventilation, 3,000 00
Inspection of Buildings, 4,600 00
Northampton-st. Dist., 20,000 00
Play grounds, 2,000 00
Sealer of W'ts & Meas., 1,400 00
Treasurer's Dep't, 500 00

OBJECT OF APPROPRIATIONS.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward . . .	$12,531,380 89	$6,561,979 94	$6,848,839 83
Sealer of Weights and Measures .	[1]5,100 00	2,911 10	2,188 90
Sewers	150,000 00	111,605 38	38,394 62
Sinking Fund Commissioners .	800 00	375 00	425 00
Small-pox Hospital . . .	[2]29,243 64	19,829 35	9,414 29
Soldiers' Relief:	[3]153,131 98	40,454 00	112,677 98
Suffolk Street District . . .	[4]2,164 03	174 87	1,989 16
Surveyor's Department . . .	36,176 00	20,182 56	15,993 44
Swett Street	[5]56,513 78	17,762 05	38,751 73
Tax and other Fees: Revenue received, $19,297 49	. . . .	267 27	19,030 22
Treasurer's Department . .	[6]22,200 00	12,590 21	9,609 79
Washington Street Extension .	[7]30,863 90	. . . .	30,863 90
Water Works, West Roxbury and Brighton Districts	[8]25,403 78	25,403 78	. . . .
West Boston and other Bridges .	[9]8,000 00	3,946 24	4,053 76
Widening Shawmut Avenue . .	[10]3,669 53	. . . .	3,669 53
Widening Streets	125,000 00	47,082 02	77,917 98
Total Appropriations, $10,267,258 00		$6,864,563 77	$7,213,820 13
Balances from 1876–77, 2,886,389 53		Less prov. for,	214,790 58
Loan 26,000 00	$13,179,647 53		
Revenue	683,945 79		$6,999,029 55
	$13,863,593 32		

[1] Transferred from the Reserved Fund, $1,400 00
[2] Brought from last year, 29,243 64
[3] Brought from last year, 153,131 98
[4] Brought from last year, 2.164 03
[5] Brought from last year, 56,513 78
[6] Transferred from the Reserved Fund, $500 00
[7] Brought from last year, 30,863 90
[8] Brought from last year, 25,403 78
[9] Brought from last year, 1,500 00
[10] Brought from last year, 3,669 53

UNCOMPLETED PUBLIC BUILDINGS AND PUBLIC WORKS, MAY 1, 1877.

TOTAL APPROPRIATIONS AND EXPENDITURES FOR EACH.

The following table shows the total amount of appropriations made from time to time by the City Council, and the objects for which they were made, — the amount expended, and balance unexpended, including the November draft.

OBJECT OF APPROPRIATIONS.	Loan, Revenue, or from Transfers.	Expended.	Unexpended.
Additional Supply of Water (transfer, loans and premium on loans)	$4,462,886 80	$3,805,974 41	$656,912 39
Back Bay streets and avenues (loan and transfers)	462,000 00	461,262 25	737 75
Beach Street (loan and transfer)	253,969 96	253,524 46	445 50
Broadway Extension (loan)	1,000,000 00	919,319 79	80,680 21
Burnt District (loans)	6,671,176 65	6,319,265 73	351,910 92
Chelsea Bridge (appropriation)	158,000 00	42,283 69	115,716 31
Eastern Avenue and Bridge (loan)	200,000 00	186,430 21	13,569 79
Francis Street School-house (appropriation)	20,000 00	16,090 28	3,909 72
Grammar School-house, Brighton District (appro'tion)	46,000 00	25 75	45,974 25
Grammar School-house, Dorchester-Everett District (appropriation)	43,000 00	42,863 45	136 55
Grammar School-house, Egleston Square (appro'tion)	23,500 00	15,309 97	8,190 03
Grammar School-house, Washington Village (appro.)	115,000 00	62,373 31	52,626 69
Home for Poor, Deer Island (appropriation)	150,000 00	2,500 00	147,500 00
Memorial Monument, Boston Common (transfer)	75,000 00	74,300 00	700 00
Mystic Sewer (loan)	205,000 00	26,423 06	178,576 94
New Engine Houses (appropriation)	23,000 00	22,707 70	292 30
New Lunatic Hospital (loan and appropriation)	148,434 76	47,371 79	101,062 97
Northampton Street District (loan and transfers)	262,000 00	256,901 16	5,098 84
Suffolk Street District (loans and transfers)	2,428,248 96	2,426,259 80	1,989 16
Swett Street (loan)	376,000 00	337,248 27	38,751 73
Washington Street Extension (loans)	1,670,000 00	1,639,136 10	30,863 90
Water Works, West Roxbury and Brighton Districts (loans and premium on loans)	480,570 00	480,570 00	
Widening Shawmut Avenue (transfer)	77,000 00	73,330 47	3,669 53
	$19,350,787 13	$17,511,471 65	$1,839,315 48

CITY OF BOSTON.

City Document No. 89.

METROPOLITAN RAILROAD. — FIFTIETH LOCATION.

MAJORITY REPORT.

In Board of Aldermen, Nov. 5, 1877.

The undersigned, a majority of the Committee on Paving, to whom was recommitted the petition of the Metropolitan Railroad Company for additional locations in Washington, Milk, and other streets, respectfully recommend the passage of the following order of location.

LUCIUS SLADE,
JOHN E. FITZGERALD.

Ordered, That, in addition to the rights heretofore granted to the Metropolitan Railroad Company to lay down tracks in several of the streets of the City of Boston, said company shall have the right to lay down an additional track on Washington street from the northerly line of Temple place to the track of the South Boston Railroad on said Washington street north of Summer street; also a curved track at the southerly corner of Washington and Summer streets, to connect the track located by this order on Washington street with the track of said Metropolitan Railroad on Summer street; also a curved track on the northerly corner of Summer and Hawley streets, to connect the track of the South Boston Railroad on Hawley street with the track of said company on Summer street.

Said Metropolitan Railroad Company shall also have the right to lay down a single track on Milk street from the track of the South Boston Railroad to Devonshire street; also in Devonshire street, from Milk street to State street, and across State street to that part of Devonshire street lying northerly of State street, and through said Devonshire street to Washington street, and in Washington street

to a point in the track of the Middlesex Railroad on said Washington street between Brattle and Elm streets.

Said company shall also have the right to lay down a curved track at the northerly corner of Washington and Milk streets, to connect the track of said Metropolitan Railroad on Washington street with the track of the South Boston Railroad on Milk street; the tracks located by this order being shown on the plans drawn by H. A. Case, civil engineer, dated ——————, 1877, and deposited in the office of the Superintendent of Streets.

Said Metropolitan Railroad Company shall also have the right to enter upon and use with its horses and cars the tracks of the South Boston Railroad Company on Washington, Milk, and Hawley streets.

The right to lay down the tracks located by this order is upon the condition that the whole work of laying down the same, the form of rail to be used, and the kind and quality of material used in paving said tracks, shall be under the direction and to the satisfaction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them. Also upon the condition that the said Metropolitan Railroad Company shall accept this order of location, and shall agree in writing to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of the date of its passage; otherwise it shall be null and void.

MINORITY REPORT.

In Board of Aldermen, Nov. 5, 1877.

The undersigned, a member of the Committee on Paving, to whom was recommitted the petition of the Metropolitan Railroad Company for additional locations in Washington, Milk, and other streets, respectfully recommends the passage of the following order of location.

R. W. ROBINSON.

Ordered, That in addition to the rights heretofore granted to the Metropolitan Railroad Company, to lay down tracks in several of the streets of the City of Boston, said company shall have the right to lay down an additional track on Washington street, from the northerly line of Temple place to the track of the South Boston Railroad on said Washington street, north of Summer street; also a curved track at the southerly corner of Washington and Summer streets, to connect the track located by this order on Washington street with the track of said Metropolitan Railroad on Summer street; also a curved track on the northerly corner of Summer and Hawley streets, to connect the track of the South Boston Railroad on Hawley street with the track of said company on Summer street.

Said Metropolitan Railroad Company shall also have the right to lay down a single track on Milk street, from the track of the South Boston Railroad to Congress street; also in Congress street, from Milk street to State street, and in State street from Congress street to that part of Devonshire street lying northerly of State street, and through said Devonshire street to Washington street, and in Washington street to a point in the track of the Middlesex Railroad on said Washington street between Brattle and Elm streets.

Said company shall also have the right to lay down a curved track at the northerly corner of Washington and Milk streets, to connect the track of the Metropolitan Railroad on Washington street with the track of the South Boston Railroad on Milk street; the tracks located by this order being shown on plans drawn by H. A. Case, Civil Engineer, dated ——————, 1877, and deposited in the office of the Superintendent of Streets.

Said Metropolitan Railroad Company shall also have the right to enter upon and use with its horses and cars the tracks of the South Boston Railroad Company on Washington, Milk, and Hawley streets.

The right to lay down the tracks located by this order is upon the condition that the whole work of laying down said tracks, the form of rail to be used, and the kind and quality of material used in paving said tracks, shall be under the direction and to the satisfaction of the Committee on Paving, and the Superintendent of Streets, and shall be approved by them. Also upon the condition that the said Metropolitan Railroad Company shall accept this order of location, and shall agree in writing to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of the date of its passage; otherwise it shall be null and void.

CITY OF BOSTON.

City Document No. 90.

HIGHLAND STREET RAILWAY. — EIGHTH LOCATION.

In Board of Aldermen, Nov. 5, 1877.

The Committee on Paving, to whom was recommitted the petition of the Highland Street Railway Company for the location of tracks on Eliot street, respectfully recommend the passage of the following order of location.

For the Committee,

R. W. ROBINSON,
Chairman.

Ordered, That in addition to the rights heretofore granted to the Highland Street Railway Company to lay down tracks in several of the streets of the City of Boston, said company shall have the right to lay down a double track on Eliot street from Columbus avenue to Tremont street, and to connect the same with the tracks of the Metropolitan Railroad on Columbus avenue, and also with the tracks of said company on Tremont street. Said Highland Street Railway Company shall also have the right to lay down a single track across Tremont street, to connect the southerly track located by this order on Eliot street, west of Tremont street, with the track of the Highland Street Railway Company as now laid down on Eliot street, east of Tremont street; the tracks located by this order being shown on plans drawn by Barbour and Hodges, civil engineers, dated Oct. 29, 1877, and deposited in the office of the Superintendent of Streets.

The right to lay down the tracks located by this order is upon the condition that the whole work of laying down said tracks, the form of rail to be used, and the kind and quality of material used in paving said tracks, shall be under the direction and to the satisfaction of the Committee on Paving

and Superintendent of Streets, and shall be approved by them. Also, upon the condition that the said Highland Street Railway Company shall accept this order of location, and shall agree in writing to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of the date of its passage; otherwise it shall be null and void.

CITY OF BOSTON.

City Document No. 91.

SOUTH BOSTON RAILROAD. — FOURTEENTH LOCATION.

In Board of Aldermen, Oct. 29, 1877.

The Committee on Paving to whom was recommitted the petition of the South Boston Railroad Company for permission to construct a turn-out track on Kneeland street, in front of the Old Colony Railroad Station respectfully report the accompanying order of location.

For the Committee.

R. W. ROBINSON,
Chairman.

Ordered, That in addition to the rights heretofore granted to the South Boston Railroad Company to lay down tracks in several of the streets of the City of Boston, said company shall have the right to lay down curved tracks to connect its track on Kneeland street with a turn-out track to be constructed by permission of the Old Colony Railroad Company, on premises of said company, lying between the southerly line of Kneeland street and the Old Colony Station; the track located by this order being shown on a plan drawn by Daniel Coolidge, Civil Engineer, dated May 12, 1877, and deposited in the office of the Superintendent of Streets. The right to lay down the tracks located by this order is upon the condition that the whole work of laying down the same shall be under the direction and to the satisfaction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them. Also, upon the condition that the said South Boston Railroad Company shall accept this order of location, and shall agree in writing to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of the date of the passage of this order; otherwise it shall be null and void.

In Board of Aldermen, Nov. 5, 1877.

Passed.

S. F. McCleary, *City Clerk.*

CITY OF BOSTON.

City Document No. 92.

REPORT OF THE JOINT STANDING COMMITTEE ON HEALTH IN RELATION TO THE ABATEMENT OF THE NUISANCE IN AND ABOUT ROXBURY CANAL.

In Board of Aldermen, November 12, 1877.

The Joint Standing Committee on Health, to whom was referred the petition of J. H. Chadwick and others, that the nuisance in and about Roxbury Canal be abated, having considered the subject and given a hearing to the petitioners, beg leave to submit the following

REPORT.

In the year 1796 John Lowell, Increase Sumner, Thomas Williams, and others were incorporated as "the proprietors of Roxbury Canal," for the purpose of opening a communication by water upon the easterly side of the town of Roxbury to extend into Roxbury, and under their charter straightened and excavated a creek which ran through Lamb's Dam Farm and the marsh adjoining, and constructed what is known as Roxbury Canal.

The canal is bordered by wharves, occupied by dealers in coal and wood, lumber, and building materials. These wharves are accessible to vessels only at high water. At low water portions of the bottom of the canal are bare, and there is no current except such as is produced by the ebb and flow of the tide.

The canal receives the contents of three sewers, viz.: the Albany-street sewer, which drains 213 acres and 1,377 houses; the Chester-park sewer, which drains 58 acres and 835 houses; and the Concord-street sewer, which drains 55 acres and 543 houses; making a total of 326 acres and 2,755 houses, the drainage of which is emptied into the canal. As a natural consequence, the accumulation of filth has produced a nuisance which is a source of great discomfort and annoyance not only to persons living in the immediate

vicinity, but also to others who reside at a considerable distance from the canal.

At the hearing given by the committee residents of houses situated on Washington and Newton streets complained that they were frequently compelled to close their windows on account of the effluvia arising from the canal. Physicians connected with both the City Hospital and the Homœopathic Hospital testified to the annoyance which is experienced at those institutions from the nauseous odors, and expressed the opinion that the recovery of patients was in some cases retarded thereby. It was also in evidence that the value of real estate in the vicinity of the canal is diminished by the nuisance. Property-owners and residents in that section of the city are anxious to have the nuisance abated, while the only opposition comes from the occupants of wharves situated on the canal, who object to having their business injured.

The only complete remedy for the evil is to intercept the sewers which now empty into the canal, and carry the sewage to a new outlet in deep water, and to fill the canal with clean gravel. To divert the drainage alone will not be an effectual remedy, as the bed and surroundings of the canal are so completely saturated with filth that a long period would elapse before they would be purified by natural methods. Besides, as long as the canal remains open, it will continue to be a convenient receptacle for garbage and debris more or less offensive in character, and increasing in quantity with the growth of the neighborhood.

The necessary authority for abating the nuisance was granted by Chapter 217 of the Acts of 1877. By this act the city is authorized to purchase, or otherwise take, the lands and easements, with the buildings and other fixtures thereon, situated within the district bounded by Harrison avenue, the line of East Chester park extended to Swett street, Swett street and Northampton street. Within sixty days from the time it shall take the lands, the city is required to file in the office of the Registry of Deeds a description of the lands so taken; and the title of the lands and easements so taken shall then vest in the City of Boston. The city shall then forthwith raise the grade of the territory by filling up the same, including that portion of Roxbury Canal lying within the district, with good clean earth or gravel, and with reference to the complete drainage thereof. All lands and easements taken otherwise than by purchase must be taken within two years, and all grading and filling done within three years from the passage of the act. On and after the completion of the work the sewers and drains now

discharging into Roxbury Canal must be discharged elsewhere, and cannot be discharged into any part of the canal. The city is authorized to lay and maintain railway tracks for the purpose of transporting earth and other material required to fill up the district.

The act further provides for the settlement of all claims on account of taking the lands, first by the appointment by the Supreme Court of three commissioners, who shall award and assess the value of the land at the time of taking, and the amount of damage, if any; and, secondly, by an appeal from the decision of the commissioners to a trial by jury at the bar of the Supreme Court.

The territory to be improved contains 329,466 square feet of land, including those portions of East Chester park and Albany street which are within its boundaries. The buildings upon it are all of wood, and consist mostly of coal and lumber sheds, stables and offices. It will not be necessary to raise the grade of the district. About 1,000 feet in length of the canal will be filled up, and a sea-wall built across the canal, on the line of East Chester park extended.

If the canal is filled up, the city will be relieved of the cost of maintaining Albany-street bridge. This bridge was constructed some twelve years since, and for temporary purposes. The bulkheads are of wood, and constant repairs are required. Its original cost was probably $10,000. A new structure will be required within three years, the cost of which would, with stone abutments and modern construction of bridge, be about $50,000.

The Superintendent of Sewers informs the committee that the cost of intercepting the sewers now discharging into the canal, and carrying them beyond the limits of the canal, as prescribed by the act, going over the Concord-street sewer, and discharging opposite Brookline street, through the yard of the Paving Department (not including the cost of any land or damages for going through the territory of the Paving Department), will be $50,000.

The total cost of the improvement is estimated as follows: —

Value of estates to be taken . . .	$305,900 00
Cost of filling canal	26,400 00
Cost of sea-wall	9,000 00
Cost of intercepting sewer to outlet opposite Brookline street	50,000 00
Total	$391,300 00

The value of the fee in the dock (if any there be) is not included in the above estimate. The value of the estates is taken from the Assessors' valuation of 1877.

The committee are of the opinion that the existence of what is nothing more or less than an open sewer within the limits of the city, and immediately adjoining a thickly populated district, is a nuisance which should be abated, and they believe that its continuance cannot fail to be prejudicial to the health of the community.

They would, therefore, respectfully recommend the passage of the following order of taking.

CLINTON VILES,
CHOATE BURNHAM,
EDWIN SIBLEY,
JAMES J. FLYNN,
ROBERT COX.

CITY OF BOSTON.

In Board of Aldermen, Nov. 12, 1877.

Whereas, by an act of the Legislature of the Commonwealth of Massachusetts, passed the eleventh day of May, A.D. 1877, entitled "An act to enable the City of Boston to abate a nuisance existing therein, and for the preservation of the public health in said city, and for other purposes," it is provided among other things as follows, viz.: —

Section 1. The City of Boston may purchase or otherwise take for the purpose of abating the nuisance now existing in and about the Roxbury Canal, so called, the lands and easements with the buildings and other fixtures thereon situate and lying within the district hereinafter bounded and described, to wit: commencing at the junction of Harrison avenue and the northerly line of East Chester park, and thence running by said northerly line of East Chester park, produced in an easterly direction, across the said Roxbury Canal to Swett street; thence by the northerly line of Swett street to Northampton street; thence by the northerly line of Northampton street to Harrison avenue; and thence by the easterly line of Harrison avenue to the point of beginning.

Said city shall, within sixty days from the time it shall

take said lands or easements, file in the office of the Registry of Deeds for the county of Suffolk a description of the lands or easements so taken as certain as is required in a common conveyance of land, and a statement that the same are taken pursuant to the provisions of this act; which said description and statement shall be signed by the mayor of said city, and the title to all lands and easements so taken shall vest in the City of Boston; and if any party whose land or easement is taken shall agree with the said city upon the damage done to him by the said taking, the same shall be paid to him by the said city forthwith. And it shall be the duty of the City of Boston forthwith to raise the grade of the territory so purchased or taken by filling up the same, including that portion of the Roxbury Canal lying within the described district, with good clean earth or gravel, and with reference to a complete drainage thereof, so as to abate the present nuisance and to preserve the health of the city.

Now, therefore, know all Men by these Presents, That the said City of Boston, by virtue of the power and authority in said act given, and pursuant to the provisions thereof, has taken, and by these presents does take, the following described parcel of land, situated within the limits described in said act, bounded and described as follows, viz.: commencing at the junction of Harrison avenue and the northerly line of East Chester park; and thence running by said northerly line of East Chester park, produced in an easterly direction across the said Roxbury Canal to Swett street; thence by the northerly line of Swett street to Northampton street; thence by the northerly line of Northampton street to Harrison avenue; and thence by the easterly line of Harrison avenue to the point of beginning.

The said parcel of land is shown on a plan made by Thomas W. Davis, City Surveyor, bearing date July 24, 1877, and deposited in the office of the said City Surveyor.

To have and to hold the same to the said City of Boston, its successors and assigns, to its and their sole use and behoof forever, agreeably to the provisions of the said act.

I, Frederick O. Prince, Mayor of the City of Boston, do hereby approve of the foregoing instruments, and of the action of the City Council in the premises; and in accordance with the provisions of the act referred to in said instrument, I hereby certify that the lands described in said instrument were, and are, taken pursuant to the provisions of the said act.

In witness whereof, I have caused the common seal of the City of Boston to be hereto affixed, and have hereto set my hand as Mayor, as aforesaid, this day of in the year of our Lord one thousand eight hundred and seventy-

CITY OF BOSTON.

City Document No. 93.

MIDDLESEX RAILROAD.—SEVENTENTH LOCATION.

In Board of Aldermen, Nov. 12, 1877.

The Committee on Paving, to whom was recommitted the petition of the Middlesex Railroad Company for leave to construct a turnout track on South street at the Old Colony Railroad Depot, respectfully recommend the passage of the accompanying order.

For the Committee,

R. W. ROBINSON,
Chairman.

Ordered, That in addition to the rights heretofore granted to the Middlesex Railroad Company to lay down tracks in several of the streets of the City of Boston, said company shall have the right to construct a turnout-track on South street, near the north-westerly corner of the Old Colony Railroad Station, and to connect the same by curved tracks with the tracks of the South Boston Railroad Company on Kneeland street. The tracks located by this order being shown on a plan drawn by Messrs. Barbour and Hodges, Civil Engineers, dated June 1st, A.D. 1877, and deposited in the office of the Superintendent of Streets.

The right to lay down the tracks located by this order is upon the condition that the whole work of laying down said tracks, the form of rail to be used, and the kind and quality of materials used in paving said tracks, shall be under the direction and to the satisfaction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them.

Also, upon condition that the said Middlesex Railroad Company shall accept this order of location, and shall agree in writing to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of the date of its passage, otherwise it shall be null and void.

Read twice and passed.

S. F. McCLEARY,
City Clerk.

CITY OF BOSTON.

City Document No. 94.

In Common Council, Nov. 15, 1877.

Read, and ordered to be printed; and the next meeting, at 8½ o'clock P.M., was assigned as a time for further consideration.

W. P. GREGG,
Clerk of the Common Council.

In the Year One Thousand Eight Hundred and Seventy-seven.

AN ORDINANCE

TO PROVIDE FOR THE PAYMENT OF MEMBERS OF THE CITY COUNCIL FOR EXPENSES INCURRED BY THEM IN THE PERFORMANCE OF THEIR OFFICIAL DUTIES.

Be it ordained by the Aldermen and Common Council of the City of Boston, in City Council assembled, as follows: —

Section 1. From and after the first Monday in January, 1878, there may be allowed to each member of the Board of Aldermen, for expenses incurred by him in the performance of his official duties, a sum in all not exceeding five hundred dollars per annum, or at that rate; the same to be paid to him from time to time, on presentation of his certificate to the Auditor of Accounts that the amount at any time asked for has been properly expended by him in the performance of his official duty as such Alderman.

Sect. 2. From and after the first Monday in January, 1878, there may be allowed to each member of the Common Council, for expenses incurred by him in the performance of his official duties, a sum in all not exceeding one hundred dollars per annum, or at that rate; the same to be paid to him from time to time, on presentation of his certificate to the Auditor of Accounts that the amount at any time asked for has been properly expended by him in the performance of his official duty as a member of the Common Council.

Sect. 3. From and after the first Monday in January, 1878, no bill for refreshments or carriage-hire, or any other bill or expense, incurred by any member or any committee of the City Council, shall be paid, unless such bill or expense shall have first been authorized by the City Council.

CITY OF BOSTON.

City Document No. 95.

AUDITOR'S MONTHLY EXHIBIT.

General and Special Appropriations for 1877–78.

Office of the Auditor of Accounts,
City Hall, December 5, 1877.

To the Honorable City Council: —

Gentlemen, — The undersigned, in compliance with the third Section of the Ordinance on Finance, herewith presents an Exhibit of the General and Special Appropriations for the present financial year of 1877–78, as shown in the books in his office, December 1, 1877, including the December draft, — being eight monthly payments of the financial year, — exhibiting the original appropriations, the balances brought forward from the year 1876–77, the amount expended, and the balance of each unexpended at that date.

Respectfully submitted,

ALFRED T. TURNER,
Auditor of Accounts.

APPROPRIATIONS.

Object of Appropriations.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Additional Supply of Water . .	[1]$1,352,571 98	$809,110 69	$543,461 29
Advertising	2,500 00	882 59	1,617 41
Armories	22,000 00	10,303 32	11,696 68
Assessors' Department . . .	92,167 00	75,911 84	16,255 16
Auditor's Department . . .	15,650 00	10,104 97	5,545 03
Back Bay Streets and Avenues .	[2]3,084 61	2,461 86	622 75
Beach Street	[3]594 00	148 50	445 50
Bells and Clocks	3,580 00	1,587 01	1,992 99
Board of Health	68,900 00	35,184 42	33,715 58
Boston Harbor	5,000 00	2,745 45	2,254 55
Branch Library, W. Roxbury Dist.	[4]10,000 00	6,974 46	3,025 54
Bridges	53,293 00	33,244 03	20,048 97
Broadway Extension . . .	[5]80,680 21	. . . .	80,680 21
Burnt District	[6]352,800 20	889 28	351,910 92
Cedar Grove Cemetery: Add Revenue received, $9,483 91	[7]5,217 75	14,473 17	228 49
Chelsea Bridge	[8]141,022 46	39,209 90	101,812 56
Chestnut Hill Driveway . . .	3,500 00	3,315 36	184 64
City Debt	672,700 00	672,700 00	. . . .
City Hospital . . . . . Add Revenue on Funds, $251 40	[9]127,000 00	86,783 47	40,467 93
City Registrar's Department . .	9,650 00	4,655 14	4,994 86
Cochituate Water Works: Revenue, $285,315 30; Running Expenses, $174,300 56; Interest, 317,128 83; Proportion paid under contract, 7,474 55	. . . .	498,903 94	($213,588 64 prov. for.)
Collector's Department . . .	42,600 00	29,382 34	13,217 66
Common, etc.	[10]80,100 00	67,186 29	12,913 71
Com. Council Chamber ventilation,	[11]3,000 00	3,000 00	. . . .
Commonwealth Avenue, Fencing and Grading,	[12]11,555 46	7,809 67	3,745 79
Completion West Chester Park, etc.	150,000 00	95,624 86	54,375 14
Contingent Funds:			
Joint Committees . . .	4,000 00	2,612 92	1,387 08
Mayor	3,000 00	323 75	2,676 25
Board of Aldermen . . .	3,000 00	2,129 60	870 40
Common Council . . .	3,000 00	1,246 17	1,753 83
County of Suffolk	365,000 00	183,770 38	181,229 62
Deeds, Real Est. Advertising, etc. Add Revenue received, $15,749 13	[13]9,176 60	15,639 50	9,286 23
East Boston Ferries . . .	165,000 00	118,333 02	46,666 98
Carried forward . . .	$3,861,343 27	$2,836,647 90	$1,549,083 75

[1] Brought from last year, $1,352,571 98
[2] Brought from last year, 3,084 61
[3] Brought from last year, 594 00
[4] Transferred from Reserved Fund, 10,000 00
[5] Brought from last year, 80,680 21
[6] Brought from last year, 352,800 20
[7] Brought from last year, 217 75
[8] Brought from last year, $26,022 46
[9] Brought from last year, 2,000 00
[10] Transferred from the Reserved Fund, 15,000 00
[11] Transferred from the Reserved Fund, 3,000 00
[12] Brought from last year, 5,555 46
[13] Brought from last year, 9,176 60

OBJECT OF APPROPRIATIONS.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward . . .	$3,861,343 27	$2,836,647 90	$1,549,083 75
Eastern Avenue and Bridge . .	[1]13,569 79	. . . .	13,569 79
Engineer's Department . . .	25,479 00	15,049 15	10,429 85
Engine House and Land, Fulton St.	[2]45,000 00	. . . .	45,000 00
English High and Latin School Buildings	[3]40,000 00	11,349 72	28,650 28
Evergreen Cemetery: Add Revenue received, $459 00	[4]1,202 85	1,399 59	262 26
Fever Hospital, Gallop's Island .	2,500 00	2,140 83	359 17
Fire Alarm Telegraph . . .	[5]20,642 00	10,539 79	10,102 21
Fire Department	563,000 00	405,830 18	157,169 82
Francis Street School-house . .	[6]3,909 72	. . . .	3,909 72
Grammar School-house, Brighton District	[7]45,974 25	6,068 12	39,906 13
Grammar School-house, Dorchester-Everett District	[8]19,194 97	19,058 42	136 55
Grammar School-house, Egleston Square	[9]10,397 13	3,093 37	7,303 76
Grammar School-house, Washington Village	[10]80,775 00	32,476 88	48,298 12
Health Department . . .	365,000 00	235,646 67	129,353 33
Home for Poor, Deer Island . .	[11]147,500 00	. . . .	147,500 00
Improved Sewerage . . .	[12]46,256 04	16,229 08	30,026 96
Incidental Expenses: Add income of Foss and Babcock Funds, $409 72	87,000 00	68,678 45	18,731 27
Inspection of Buildings . . .	[13]18,600 00	11,846 76	6,753 24
Interest and Premium . . .	1,698,000 00	890,672 34	807,327 66
Lamps	490,000 00	285,048 25	204,951 75
Law Department	18,440,00	11,093 17	7,346 83
Liquor License Expenses: Add Revenue rec'd, $264,910 00	[14]2,523 48	*77,844 42	189,589 06
Markets	9,295 00	5,959 41	3,335 59
Memorial Monument, Boston Common	[15]52,500 00	51,800 00	700 00
Mount Hope Cemetery: Add Revenue received, $11,311 32	[16]16,526 61	26,791 71	1,046 22
Mt. Washington Avenue Bridge .	[17]8,000 00	157 88	7,842 12
Mystic Sewer	[18]203,755 68	59,919 57	143,836 11
Mystic Water Works: Revenue, $94,134 26; Running expenses, $74,849 20; Interest, 34,560 00; Proportions paid under contracts, 20,552 20	. . . .	129,961 40	($35,827.14 prov. for.)
Carried forward . . .	$7,896,384 79	$5,215,303 06	$3,612,521 55

[1] Brought from last year.	$13,569 79	[11] Brought from last year,	$147,500 00
[2] Brought from last year,	45,000 00	[12] Brought from last year,	20,256 04
[3] Loan,	40,000 00	Loan,	26,000 00
[4] Brought from last year,	202 85	[13] Transferred from the Reserved Fund,	4,600 00
[5] Brought from last year,	1,000 00	[14] Brought from last year,	2,523 48
[6] Brought from last year,	3,909 72	[15] Brought from last year,	52,500 00
[7] Brought from last year,	5,974 25	[16] Brought from last year,	1,826 61
[8] Brought from last year,	16,194 97	[17] Brought from last year,	8,000 00
[9] Brought from last year,	6,897 13	[18] Brought from last year,	203,755 68
[10] Brought from last year,	80,775 00		

* Of this amount $64,760 00 were paid to State, being one-quarter of receipts for licenses, and $13,124 42 were expenses incurred under the law.

Object of Appropriations.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward, . . .	$7,896,384 79	$5,215,303 06	$3,612,521 55
Neponset Bridge	[1] 19,000 00	5,181 93	13,818 07
New Engine Houses . . .	[2] 860 67	568 37	292 30
New Lunatic Hospital . . .	[3] 101,062 97	1,062 97	100,000 00
Northampton Street District . .	[4] 20,532 27	15,668 20	4,864 07
Old Claims	2,000 00	1,474 19	525 81
Overseers of the Poor . . .	141,400 00	42,994 73	98,405 27
Park Department	[5] 2,159 92	1,538 74	621 18
Paving, etc.	850,000 00	684,138 32	165,861 68
Play grounds	[6] 2,000 00	570 00	1,430 00
Police	841,300 00	557,222 33	284,077 67
Primary School-house, City Point .	[7] 15,000 00	. . . .	15,000 00
Primary School-house, Sherwin District	40,000 00	10,610 85	29,389 15
Printing and Stationery . . .	27,000 00	15,172 80	11,827 20
Prison Point Bridge . . .	[8] 2,629 03	2,256 05	372 98
Public Baths	25,000 00	17,403 50	7,596 50
Public Buildings	83,850 00	59,901 96	23,948 04
Public Institutions, viz.:			
House of Industry . . .	[9] 184,515 24	115,539 66	68,975 58
House of Correction . . .	91,150 00	62,366 84	28,783 16
Lunatic Hospital . . .	59,720 00	32,870 17	26,849 83
Pauper Expenses . . .	80,600 00	45,167 46	35,432 54
Steamboat "J. Putnam Bradlee"	18,170 00	5,105 31	13,064 69
Office Expenses	7,350 00	1,516 98	5,833 02
Marcella Street Home . .	25,000 00	17,529 36	7,470 64
Almshouse, Austin Farm . .	18,000 00	6,887 54	11,112 46
Almshouse, Charlestown District	9,000 00	5,214 35	3,785 65
Addition to building, Rainsford Island	16,000 00	6,188 19	9,811 81
New Piggery, Deer Island . .	8,500 00	8,442 53	57 47
Public Lands	6,000 00	1,989 42	4,010 58
Public Library	[10] 120,626 00	77,616 97	43,009 03
Quarantine Department . . .	14,400 00	9,957 96	4,442 04
Registration of Voters and Election Expenses	22,200 00	13,316 98	8,883 02
Reserved Fund	[11] 243,500 00	. . . .	243,500 00
Salaries	31,950 00	21,051 03	10,898 97
Schools and School-houses, viz.:			
School Instructors . . .	1,115,520 00	767,641 91	347,878 09
School Expenses, School Com. .	245,000 00	177,525 94	67,474 06
Salaries Officers, School Com. .	51,000 00	38,689 90	12,310 10
School-houses, Public Buildings .	133,000 00	95,726 91	37,273 09
Carried forward . . .	$12,571,380 89	$8,141,413 41	$5,361,407 30

[1] Brought from last year, $19,000 00
[2] Brought from last year, 860 67
[3] Brought from last year, 100,628 21
Transferred from House of Industry, 434 76
[4] Brought from last year, 532 27
Transferred from Reserved Fund, 20,000 00
[5] Brought from last year, 2,159 92
[6] Transferred from the Reserved Fund, 2,000 00
[7] Brought from last year, 15,000 00
[8] Brought from last year, 2,629 03
[9] Transferred to New Lunatic Hospital, 434 76

[10] Brought from last year, $500 00
[11] Transferred to Branch Library West Roxbury District, 10,000 00
Common, 15,000 00
Com. Council Chamber ventilation, 3,000 00
Inspection of Buildings, 4,600 00
Northampton-st. Dist., 20,000 00
Play grounds, 2,000 00
Sealer of W'ts & Meas., 1,400 00
Treasurer's Dep't, 500 00

OBJECT OF APPROPRIATIONS.	Amount of each Appropriation.	Expended.	Bal. Unexpended.
Brought forward . . .	$12,571,380 89	$8,141,413 41	$5,361,407 30
Sealer of Weights and Measures .	[1]5,100 00	3,316 10	1,783 90
Sewers	150,000 00	129,272 31	20,727 69
Sinking Fund Commissioners .	800 00	375 00	425 00
Small-pox Hospital . . .	[2]29,243 64	23,614 08	5,629 56
Soldiers' Relief: Add revenue, $79,181 00	[3]153,131 98	47,752 35	184,560 63
Suffolk Street District . . .	[4]2,164 03	174 87	1,989 16
Surveyor's Department . . .	36,176 00	23,005 36	13,170 64
Swett Street	[5]56,513 78	17,762 05	38,751 73
Tax and other Fees: Revenue received, $19,553 15	. . . .	286 27	19,266 88
Treasurer's Department . .	[6]22,200 00	14,452 82	7,747 18
Washington Street Extension .	[7]30,863 90	. . . .	30,863 90
Water Works, West Roxbury and Brighton Districts	[8]25,403 78	25,403 78	. . . .
West Boston and other Bridges .	[9]8,000 00	4,583 28	3,416 72
Widening Shawmut Avenue . .	[10]3,669 53	. . . .	3,669 53
Widening Streets	125,000 00	50,620 83	74,379 17
Total Appropriations, $10,267,258 00		8,482,032 51	$5,767,788 99
Balances from 1876–77, 2,886,389 53		Less prov. for,	249,415 78
Loan 66,000 00			
	$13,219,647 53		
Revenue	780,758 19		$5,518,373 21
	$14,000,405 72		

[1] Transferred from the Reserved Fund, $1,400 00
[2] Brought from last year, 29,243 64
[3] Brought from last year, 153,131 98
[4] Brought from last year, 2,164 03
[5] Brought from last year, 56,513 78
[6] Transferred from the Reserved Fund, $500 00
[7] Brought from last year, 30,863 90
[8] Brought from last year, 25,403 78
[9] Brought from last year, 1,500 00
[10] Brought from last year, 3,669 53

UNCOMPLETED PUBLIC BUILDINGS AND PUBLIC WORKS, MAY 1, 1877.

TOTAL APPROPRIATIONS AND EXPENDITURES FOR EACH.

The following table shows the total amount of appropriations made from time to time by the City Council, and the objects for which they were made, — the amount expended, and balance unexpended, including the December draft.

OBJECT OF APPROPRIATIONS.	Loan, Revenue, or from Transfers.	Expended.	Unexpended.
Additional Supply of Water (transfer, loans and premium on loans)	$4,462,886 80	$3,919,425 51	$543,461 29
Back Bay streets and avenues (loan and transfers)	462,000 00	461,377 25	622 75
Beach Street (loan and transfer)	253,969 96	253,524 46	445 50
Broadway Extension (loan)	1,000,000 00	919,319 79	80,680 21
Burnt District (loans)	6,671,176 65	6,319,265 73	351,910 92
Chelsea Bridge (appropriation)	158,000 00	56,187 44	101,812 56
Eastern Avenue and Bridge (loan)	200,000 00	186,430 21	13,569 79
Francis Street School-house (appropriation)	20,000 00	16,090 28	3,909 72
Grammar School-house, Brighton District (appro'tion)	46,000 00	6,093 87	39,906 13
Grammar School-house, Dorchester-Everett District (appropriation)	43,000 00	42,863 45	136 55
Grammar School-house, Egleston Square (appro'tion)	23,500 00	16,196 24	7,303 76
Grammar School-house, Washington Village (appro.)	115,000 00	66,701 88	48,298 12
Home for Poor, Deer Island (appropriation)	150,000 00	2,500 00	147,500 00
Memorial Monument, Boston Common (transfer)	75,000 00	74,300 00	700 00
Mystic Sewer (loan)	205,000 00	61,163 89	143,836 11
New Engine Houses (appropriation)	23,000 00	22,707 70	292 30
New Lunatic Hospital (loan and appropriation)	148,434 76	48,434 76	100,000 00
Northampton Street District (loan and transfers)	262,000 00	257,135 93	4,864 07
Suffolk Street District (loans and transfers)	2,428,248 96	2,426,259 80	1,989 16
Swett Street (loan)	376,000 00	337,248 27	38,751 73
Washington Street Extension (loans)	1,670,000 00	1,639,136 10	30,863 90
Water Works, West Roxbury and Brighton Districts (loans and premium on loans)	480,570 00	480,570 00	
Widening Shawmut Avenue (transfer)	77,000 00	73,330 47	3,669 53
	$19,350,787 13	$17,686,263 03	$1,664,524 10

CITY OF BOSTON.

City Document No. 96.

REPORT OF COMMITTEE ON LAMPS ON PETITION OF R. M. C. GRAHAM AND OTHERS FOR LEAVE TO LAY GAS MAINS AND PIPES IN THE STREETS.

In Board of Aldermen, Dec. 3, 1877.

Laid on the table and ordered to be printed.

Attest:

JOHN T. PRIEST,
Asst. City Clerk.

To the Honorable the Mayor, Aldermen, and Common Council of the City of Boston: —

Permission is hereby requested by Robert M. C. Graham and his associates to lay gas mains and pipes in the streets, avenues, and public places in the City of Boston, for the purpose of supplying gas to the city and its inhabitants, upon the conditions following: —

First. — The manufactory or works necessary for the purposes of producing gas shall be so conducted as not to be in any way detrimental to the public health, nor otherwise create a nuisance.

Second. — The gas furnished shall be of the best quality of illuminating gas, and of an illuminating power of not less than sixteen (16) candles when tested at a distance of not less than one mile from the place of manufacture.

Third. — Gas shall be supplied to the public lamps situated on the line or lines of the mains so to be laid, and said lamps shall be lighted when required by the city at a rate not to exceed the maximum of twenty-five (25) dollars per annum for each lamp burning 3,833⅓ hours and consuming gas through a burner consuming three cubic feet of gas per hour, under a pressure of one inch, — the said rate to include the gas, lighting, extinguishing, cleaning, repairing, reglazing, and painting the lamp-posts and lanterns, replacing the cocks, tubes, burners, cross-heads, lamp-irons, and lanterns.

Also the price for fitting up and repairing lamp-posts which may at any time be required shall not exceed the following rates, to wit: —

For fitting up each lamp-post	$10 00
For straightening each lamp-post . . .	1 50
For re-leading each column	1 50
For refitting each column	3 50
For removing each lamp-post	3 50
For resetting each lamp-post	10 00

Fourth. — Gas shall be supplied to the public buildings or offices of the corporation situated on the line or lines of the mains so to be laid whenever the said petitioners may be required so to do by the proper officers of the city, at a rate not to exceed two (2) dollars per one thousand cubic feet. It should, however, be taken into consideration that the gas of the Municipal Gas Light Company of N. Y. (which same quality your petitioners propose to furnish) is of greater illuminating power than ordinary gas, and that the consumers find a saving of at least 25 per cent. in its use.

Fifth. — The proper officers of the City of Boston shall have the right to order the mains or pipes so to be laid, to be extended in or along any of the streets, avenues, or public places of the city; *provided*, that said petitioners shall not be compelled to expend in laying of mains a yearly sum exceeding ten thousand dollars.

Sixth. — All trenches or excavations shall be filled immediately after the mains or pipes shall be laid, the earth to be thoroughly rammed as the same is thrown into the trench or excavation, and the pavement replaced in a good and workmanlike manner, to the entire satisfaction of the proper officers of the city.

Seventh. — The permission asked for, if granted, shall not become operative until the said petitioners shall have signified their assent to the conditions and their acceptance of the permission, giving good and sufficient security for the faithful performance of the contract, to the satisfaction of the proper officers of the city.

In Board of Aldermen, Dec. 3, 1877.

The Committee on Lamps, to which was referred the accompanying petition of R. M. C. Graham and others, to lay gas-mains and manufacture gas in the City of Boston, submit the following

REPORT.

Your committee have given such careful attention to the subject referred to them as the importance of the question demands. They have personally visited New York and the works of the Municipal Gas Company there, which is understood to manufacture its gas under a process and a patent like those proposed to be employed here. They do not profess to be experts in chemistry, or in the manipulations of the various materials used by different companies to produce gas of a good illuminative quality; but they have given to the various bearings of the subject such careful examination as enables them, in their opinion, to form an intelligent judgment on it.

There is no question that an article which at first was a luxury has now become almost a necessity in every household; and we hold it to be the duty of every municipal corporation to know that the gas distributed through the streets under its charge shall be of good quality, and sold at a price for public and private consumption which shall be fair and just.

It is fortunate that the merits of the whole case should have received so recently a full and exhaustive examination from the Gas Commissioners of the City of Boston, who spent more than a year and a half in the investigations from which they derived their conclusion; and it will be seen, in the progress of this report, how largely we are indebted to them for statements of facts, explanations of processes of manufacture, and the logical conclusions to which their examinations led.

As shown by their report there are substantially but three processes of gas-making which have any considerable use. First, coal gas, which furnishes the only illuminating gas for all the great cities of Europe, and of Boston and Philadelphia in this country; second, petroleum or naphtha gas, in partial use in some towns and cities in the United States; third, water gas, in moderate use in half-a-dozen different processes in this country.

Neither of these processes has been substantially improved since its invention, although each has been simplified, and advantageous changes in the details of manufacture have been made.

Full descriptions of the comparative value of each of these forms of manufacture are to be found on pages 9 to 33, inclusive, of the Commissioners' report.

The petition now before us for consideration is for permission to introduce a form of water gas now in use in the city of New York.

Of the character of this gas it is sufficient to say that its use was forbidden in the city of Paris on account of the large amount of carbonic oxide which it contained, which a scientific commission of eminent chemists reported that it would be dangerous to introduce, even by way of experiment.

By a law which passed the New Jersey Legislature, at its last session, no gas is allowed to be sold in the State which contains more than two per cent. of carbonic oxide. In explanation of this it may be stated that carbonic oxide is a gas of so poisonous a character that one volume of it diffused through 100 volumes of air renders the latter unfit to sustain life.

It is said by the Commissioners to be a pure physiological poison, producing death almost as readily when diluted as when pure.

We here subjoin an analysis, by Professor Henry Morton, of the Stevens Institute of Technology, Hoboken, New York, a distinguished chemist, of the gas furnished by the Municipal Company during the past summer: —

Constituents.	*Per cent. in volume.*
Carbonic acid	.21
Oxygen	.14
Olefiant gas and like "illuminants"	15.12
Benzine vapors and like "illuminants"	1.14
Carbonic oxide	26.18
Hydrogen	27.29
Marsh gas	25.43
Nitrogen	4.45
	99.96

The amount of carbonic oxide here shown, viz., about 26 per cent., is, in my opinion, quite enough to render this gas very dangerous in view of the liability to leakage and escape which exists in its distribution and use. The amount of carbonic acid which this gas will develop in burning will also be about 50 per cent. more than that produced by ordinary coal gas.

Carbonic acid, as is well known, is fatal to life immediately if present to the extent of 30 per cent. in the air inhaled, and produces serious injury if present to the extent of even 1 or 2 per cent. in air which is inhaled for a long time.

Carbonic oxide is, however, far more poisonous, and is stated to produce fatal effects when present even to the extent of 3 per cent. in the air inhaled; even very minute quantities producing severe symptoms of headache, giddiness, etc., in a short time.

Before considering specifically in detail what the petitioners desire, it is obvious that the establishment of such a manu-

facture must bring into employment additional capital upon which the gas consumers must pay interest. It is worth while to look for a moment at the price of gas as affected by the capital employed to manufacture and distribute it.

There is invested in the city of New York in gas capital and bonds the sum of $20,750,000, or $20.75 to each inhabitant on the basis of 1,000,000 population.

With recent proposed additions, Brooklyn will have invested a capital of $11,845,000, or $23.69 to each inhabitant, estimating the population at half a million.

In the large district supplied by the Boston companies, $5,333,000 is invested, or $15.24 to each inhabitant, on the basis of 350,000 population.

The practical result from this is that gas is sold to private consumers by every company but one in New York and Brooklyn at $2.50 per 1,000 cubic feet, while in Boston proper it has been for many years sold at a lower price than in either of those cities, and the price is now $2.25 per 1,000 cubic feet.

The general reasons for this result may be found in the masterly statement of John Stuart Mill, quoted in the hearing before the Board of Aldermen in 1874, page 124, and in the Commissioners' report, pages 60 and 61 : —

When, in any employment, the régime of independent small producers has either never been possible, or has been suspended, and the system of many work-people under one management has become fully established, from that time any further enlargement in the scale of production is generally an unqualified benefit. It is obvious, for example, how great an economy of labor would be obtained if London were to be supplied by a single gas or water company, instead of the existing plurality. While there are even as many as two, this implies double establishments of all sorts, when one only, with a small increase, could probably perform the whole operation equally well; double sets of machinery and works, when the whole of the gas or water required could generally be produced by one set only; even double sets of pipes, if the companies did not prevent this needless expense, by agreeing upon a division of the territory. Were there only one establishment, it could make lower charges consistently with obtaining the rate of profit now realized. It is, however, an error to suppose that prices are even permanently kept down by the competition of these companies. Where competitors are so few, they always end by agreeing not to compete. They may run a race of cheapness to ruin a new candidate, but as soon as he has established his footing they come to terms with him. When, therefore, a business of real public importance can only be carried on advantageously upon so large a scale as to render the liberty of competition almost illusory, it is an unthrifty dispensation of the public resources, that several costly sets of arrangements should be kept up for the purpose of rendering to the community this one service. It is much better to treat it at once as a public function; and if it be not such as the government itself could beneficially undertake, it should be made over entire to the company or association which will perform it on the best terms for the public. In the case of railways, for example, no one can desire to see the enormous

waste of capital and land (not to speak of increased nuisance) involved in the construction of a second railway to connect the same places already united by an existing one; while the two would not do the work better than it could be done by one, and, after a short time, would probably be amalgamated. Only one such line ought to be permitted; but the control over that line never ought to be parted with by the State, unless on a temporary concession, as in France; and the vested right which Parliament has allowed to be acquired by the existing companies, like all other proprietary rights which are opposed to public utility, is morally valid only as a claim to compensation.

In this connection we quote to the same point from the Commissioners' report, page 61, as follows: —

In the early days of railroads in this country and England competition was regarded as a sovereign remedy for high rates of transportation; but the result has shown a vast waste of capital, and compelled the public to pay interest on the cost of many lines which should never have been built. In gas companies the result has been the same, wherever competition in the same district has been carried to its legitimate and necessary issue. But one line of main pipes was necessary to supply the public wants, and wherever two were laid, in some form or other the consumer must pay the cost upon the unnecessary expenditure. Such a competition has led to precisely the result which might have been expected, a combination of or compromise between the companies, and an increased rate for gas to the consumers to pay the interest on the unnecessary outlay of capital.

While the public interest in the proper and economical management of gas companies is less in extent than that in the management of railroad corporations, it is precisely of the same nature. Both are and must remain monopolies. Both are liable to be conducted arbitrarily and in a manner to injure and abuse. The railroad corporations of this State have been always controlled by law, while the gas companies have been left to pursue their way unchecked and untrammelled; and it is due to their managers to say that, in most instances, they have not abused the license they have enjoyed.

The advantages which the petitioners offer are two, — a nominally lower price for the gas for the street lamps, including the care of the lamps, and a lower price for the gas used in the public buildings; with respect to the price to be charged to private consumers nothing is said in their proposals.

As regards the street lamps, they propose to use three-foot burners, as is done in New York, where the lamps are placed 100 feet apart.

In Boston, burners consuming not less than four feet per hour are used, and the lamps are 150 feet apart.

It will be seen, therefore, that to cover the same space which is now lighted by two lamps there must be, by the new plan, three lamps, the cost of which will be $75 per annum.

The experience of the Lamp Department shows that this is a little more than it now costs in the city proper.

As regards the public buildings the quantity of gas used is so small as not to be worth considering.

Whatever saving there might be would be far more than offset by the injury to the streets and the inconvenience to the public.

The whole cost of gas for the public buildings for the year ending May 1, 1877, was $39,200.28. Of this sum $24,378.62 was paid to the Boston Gas Light Company, for the gas furnished to the public buildings in the city proper.

At the price at which the petitioners propose to furnish gas the cost would have been but $1,500 less; and this saving is all the advantage which the city would derive from the grant of a perpetual right to a new corporation to break up the pavements and interrupt public travel whenever the necessities or convenience of the new corporation might require.

These are the considerations which are offered the City of Boston as reasons for the investment of further capital in the business, for the injury to be done to the streets, and for the erection of works of the dangerous character of all works where naphtha is used.

In this connection we may quote advantageously some of the conclusions of the Gas Commissioners: —

I. That the citizens of Boston are being supplied by the Boston Gas Light Company with gas of excellent quality, and at a price, in comparison with the cost of coal and the quality of the gas, lower than in most of the cities of the United States. No fair comparison can be made in regard to price with European cities, on account of the great difference in the cost of labor and material, and the value of residuals.

II. That there are other processes than those in use in the various companies in this city by which illuminating gas can be made, and for which great improvements in regard to cost and quality are claimed. At this present time, however, it would probably be impossible for a large gas company like the Boston Gas Light Company, to make use of any process for the manufacture of illuminating gas from naphtha or petroleum, without either paying a consdierable royalty or becoming involved in lawsuits for the alleged infringement of some patent. It is, nevertheless, doubtful whether any of the patents for using petroleum or naphtha in gas-making are valid. We advise, most decidedly, against the admission of another private gas corporation within the limits of Boston to compete in the sale of gas with the existing companies, as being disadvantageous to the public generally.

In the course of our investigations we have visited the gas works in this city, and the largest gas works in New York, as well as the Municipal Gas Company Works, and we find the works of the Boston Gas Light Company fully up to the standard of the best works which we have visited; and we believe that it is admitted by all gas engineers that their apparatus for experimental purposes is not surpassed by any in the country.

Your committee are of the opinion that it is not for the interest of the city to grant permission to another company to dig up its streets, in order to try the experiment whether cheaper or better gas can be made from some other material than coal.

It is for the interest of every gas company to make its gas as cheaply as possible; and all experiments for this purpose may be safely left to the companies already established.

If the experiment succeeds, the new process, or the new material, is sure to be adopted by the watchful and intelligent managers of gas companies.

If it fails, no great harm will have been done. But if new works have been built, and new mains have been laid in the streets, to try the experiment which proves to be unsuccessful, the community is at once subjected to a heavy loss in addition to the inconvenience and ultimate loss which have been found to follow invariably from the acts of competing gas companies; no one has been benefited except the contractor for building the works.

Your committee, for the reasons herein set forth, recommend that the petitioners be granted leave to withdraw.

FRANCIS THOMPSON,
GEORGE DUNBAR,
R. W. ROBINSON,
Committee on Lamps.

CITY OF BOSTON.

City Document No. 97.

METROPOLITAN RAILROAD. — FIFTY-FIRST LOCATION.

In Board of Aldermen, Dec. 10, 1877.

The Committee on Paving, to whom was referred the petition of the Metropolitan Railroad Company, for leave to lay down an additional track in Battery street, respectfully recommend the passage of the accompanying order of location.

For the committee,

R. W. ROBINSON,
Chairman.

Ordered, That, in addition to the rights heretofore granted to the Metropolitan Railroad Company to lay down tracks in several of the streets of the City of Boston, said company shall have the right to lay down a double track on *Battery street*, from Hanover street to Commercial street, and across Commercial street to the avenue leading to the East Boston North Ferry slip, and upon said avenue to a point about eighty feet east of the easterly line of Commercial street, there to connect the same with the tracks of said company now laid down in said avenue.

Said company shall also have the right to connect by curved tracks the tracks located by this order on Battery street with the tracks of said company as now laid down in Hanover street; the tracks located by this order being shown by red lines on a plan drawn by H. A. Case, civil engineer, dated November 26, 1877, and deposited in the office of the Superintendent of Streets.

Said Metropolitan Railroad Company are hereby authorized and directed to take up and remove so much of the track or tracks now laid down in said Hanover, Battery, and Commercial streets, and in the avenue leading to the East Boston North Ferry slip, as shall not be required by said

company for its convenience or use after the tracks located by this order shall have been laid.

The right to lay down the tracks located by this order is upon the condition that the whole work of laying down said tracks, the precise location of the same, the form of rail to be used, and the kind and quality of material used in paving said tracks, shall be under the direction and to the satisfaction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them; also upon condition that said Metropolitan Railroad Company shall accept this order of location, and shall agree in writing to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of the date of the passage of this order, otherwise it shall be null and void.

Read, accepted, and the order passed.

S. F. McCLEARY,
City Clerk.

CITY OF BOSTON.

City Document No. 98.

SOUTH BOSTON RAILWAY. — SIXTEENTH LOCATION.

In Board of Aldermen, Dec. 10, 1877.

The Committee on Paving, to whom was recommitted the petition of the South Boston Railroad Company, for leave to lay down curved tracks and connections on Sixth street, between O and P streets, respectfully recommend the passage of the accompanying order of location.

For the committee,

R. W. ROBINSON,

Chairman.

Ordered, That, in addition to the rights heretofore granted to the South Boston Railroad Company to lay down tracks in several of the streets of the City of Boston, said company shall have the right to lay down curved tracks on Sixth street, between O and P streets, to connect the double tracks now laid down in said street with the car-house recently erected by said company on the northerly side of said Sixth street, the curved tracks located by this order being shown by red lines on a plan drawn by Daniel Coolidge, civil engineer, dated June 11, 1877, and deposited in the office of the Superintendent of Streets.

The right to lay down the tracks located by this order is upon the condition that the whole work of laying down said tracks, the form of rail to be used, and the kind and quality of material used in paving said tracks, shall be under the direction and to the satisfaction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them; also upon the condition that said South Boston Railroad Company shall accept this order of location, and shall agree in writing to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of the date of the passage of this order, otherwise it shall be null and void.

Report accepted and the order passed.

S. F. McCLEARY, *City Clerk.*

CITY OF BOSTON.

City Document No. 99.

UNION FREIGHT RAILWAY. — THIRD LOCATION.

In Board of Aldermen, Dec. 10, 1877.

The Committee on Paving, to whom was recommitted the petition of the Union Freight Railway Company, for leave to lay down a track from Commercial street to Union wharf, respectfully recommend the passage of the accompanying order of location.

For the committee,

R. W. ROBINSON,

Chairman.

Ordered, That, in addition to the rights heretofore granted to the Union Freight Railway Company to lay down tracks in several of the streets of the City of Boston, said company shall have the right to lay down a curved track from its track on Commercial street to Union wharf, said curved track being shown on a plan dated November 19, 1877, and deposited in the office of the Superintendent of Streets.

The right to lay down the track located by this order is upon condition that the whole work of laying down said track, the form of rail to be used, and the kind and quality of material used in paving said track, shall be under the direction and to the satisfaction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them; also upon the condition that said Union Freight Railway Company shall accept this order of location, and shall agree in writing to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of the date of its passage, otherwise it shall be null and void.

Report accepted and the order passed.

S. F. McCLEARY,

City Clerk.

CITY OF BOSTON.

City Document No. 100.

ANNUAL REPORT OF THE COMMITTEE ON BATHING FOR 1877.

In Board of Aldermen, Dec. 24, 1877.

The Joint Standing Committee on Bathing beg leave to submit the customary annual report of the department under their charge, as follows: —

The committee asked for an appropriation of $25,000, to cover the expenses of the department for the financial year 1877–78, which was granted by the City Council.

In October, 1876, an order was passed by the City Council, placing the Cabot-street double bath-house (formerly comprising Nos. 13 and 14) in the charge of the Committee on Public Buildings, and it is now used as a ward-room and for evening school purposes; consequently the number of bath-houses used this season was reduced from twenty to eighteen.

Since the close of the bathing season two old bath-houses (Nos. 15 and 18) have been sold, with the approval of the committee, by the General Superintendent, and the proceeeds, aggregating $140.00, have been paid into the City Treasury. Two new houses, to take the places of the above, are in process of construction, under the direction of the General Superintendent.

The several houses were opened on the first of June, the locations and regulations being as follows: —

Locations.

For Men and Boys.

No. 1. — West Boston Bridge, foot of Cambridge street, under the charge of Councilman Blodgett.

No. 2. — Cragie's Bridge, under the charge of Alderman Slade.

No. 3. — Charles-river Bridge, near Causeway street, under the charge of Alderman Viles.

No. 5. — East Boston Sectional Dock, Border street, under the charge of Councilman Pearl.
No. 7. — Federal-street Bridge, under the charge of Councilman Fernald.
No. 8. — Mt. Washington avenue Bridge, near Federal street, under the charge of Councilman Loughlin.
No. 10. — South Boston, foot of L street, Dorchester Bay, under the charge of Councilman Fernald.
No. 11. — Dover street, at South Pier, under the charge of Alderman Viles.
No. 15. — Swett street, under the charge of Councilman O'Donnell.
No. 17. — East Boston, Maverick street, under the charge of Alderman Gibson.
No. 18. — Charlestown, Chelsea Bridge, under the charge of Alderman Slade.

For Women and Girls.

No. 4. — Warren Bridge and Causeway street, under the charge of Councilman O'Donnell.
No. 6. — East Boston Sectional Dock, Border street, under the charge of Councilman Pearl.
No. 9. — South Boston, foot of Fifth street, under the charge of Councilman Loughlin.
No. 12. — Dover street, at South Pier, under the charge of Councilman Loughlin.
No. 16. — Dorchester, Commercial Point, under the charge of Councilman Blodgett.
No. 19. — Charlestown, Chelsea Bridge, under the charge of Alderman Gibson.

For both Males and Females.

No. 20. — Charlestown, Malden Bridge, under the charge of Alderman Viles.

The hours for bathing at this house are so arranged that men and boys are admitted from 5 to 8 A.M., 12 to 3 P.M., and 6½ to 9 P.M.; women and girls from 8½ to 11 A.M., and 3½ to 6 P.M. Sundays, — for men and boys only, — from 5 to 9 o'clock A.M.

REGULATIONS.

[These apply to the management of all the houses, except with regard to the hours for bathing at Bath-house No. 20, which are modified as above.]

The baths will be open daily, from June 1 to September 30, as follows: —

Males.		Females.	
Week Days . .	5 A.M. to 9 P.M.	Week Days . .	6 A.M. to 8 P.M.
Sundays . . .	5 A.M. to 9 A.M.	Sundays . . .	6 A.M. to 9 A.M.

All the bath-houses will be closed by the Superintendents at 10 o'clock, P.M., on week days, and at 9½ o'clock, A.M., on Sundays.

Each bather shall provide his own towels and soap. Female bathers shall be required to furnish suitable bathing-dresses. Those desiring towels can obtain them of the Superintendent at three cents each.

Boys and girls under fifteen years of age shall not be admitted to the bathing-houses after 6 o'clock, P.M., and the decision of the Superintendent against admission shall be final.

Each Superintendent shall have full charge of his premises, and authority to withhold the facilities from all not conforming to these rules; and he will be required to render every assistance to applicants for baths, who, in case of insult or deprivation of privileges otherwise than as provided for in these rules, can appeal to the chairman of the Bathing Committee.

No smoking, profanity, or noisy conversation will be allowed on the premises; and any person guilty of defacing the dressing-room, fences, or tanks, by writing, marking, or cutting, will be excluded from the baths, or arrested, according to the nature of the offence.

All questions of priority in bathing, or of use of dressing-rooms, must be referred to the Superintendent, whose decision shall be final.

A police officer will be in constant attendance, for the purpose of preserving order and enforcing these regulations, in concurrence with the Superintendent.

The committee trust that all bathers will conduct themselves with propriety and decorum.

Per order Committee on Bathing,

CLINTON VILES,

Chairman.

Boston, June 1, 1877.

The following statements show the expense of maintaining each establishment during the municipal year, and the number of bathers of each class: —

EXPENSES.

Bath House No. 1	$535 97
" No. 2	1,000 00
" No. 3	517 35
" No. 4	443 78
" No. 5	709 47
" No. 6	709 48
" No. 7	568 29
" No. 8	555 50
" No. 9	642 95
" No. 10	834 86
" No. 11	655 47
" No. 12	655 47
" No. 15	1,035 53
" No. 16	358 75
" No. 17	644 17
" No. 18	720 31
" No. 19	1,114 19
" No. 20	836 06
General expenses for the twelve months	10,128 88
Total	$22,666 48

The following statement shows the expenses of maintaining the public baths during the last eight municipal years: —

1877	$22,666 48
1876	24,643 12
1875	21,440 87
1874	28,881 50
1873	37,299 43
1872	40,464 91
1871	38,997 06
1870	21,284 66

The average expense per bath for the season of 1877 was .018+
" " " " " 1876 " .017+
" " " " " 1875 " .019+
" " " " " 1874 " .020+
" " " " " 1873 " .026+
" " " " " 1872 " .026+
" " " " " 1871 " .026+
" " " " " 1870 " .015+

DETAILS OF THE BATHS.

Locality.	Superintendent.	June, 1877.					July, 1877.				
		Men.	Boys.	Wom'n.	Girls.	Total.	Men.	Boys.	Wom'n.	Girls.	Total.
No. 1. West Boston Bridge	P. L. Salmon	17,731	16,601	....	....	34,332	9,963	13,515	....	....	23,478
No. 2. Cragie's Bridge	C. C. Geyer	7,532	41.645	....	....	49,177	12,660	62,420	....	....	75,080
No. 3. Charles-river Bridge	John Gallagher	5,008	14,134	....	....	19,142	7,066	14,883	....	....	21,949
No. 4. Warren Bridge	Sarah O'Donnell	....	....	439	5,474	5,913	....	....	1,016	8,681	9,697
No. 5. East Boston, Border street	Edward A. Swett	6,295	14,605	....	....	20,900	5,328	12,306	....	....	17,634
No. 6. East Boston, Border street	Elizabeth P. Chadbourne	....	....	3,778	13,647	17,425	....	....	4,285	13,684	17,969
No. 7. Federal-st. Bridge	H. F. Tilton	1,666	8,025	....	....	9,691	1,870	17,069	....	....	18,939
No. 8. Mt. Washington ave. Bridge	John McNamara	3,291	7,420	....	....	16,711	8,675	16,206	....	....	24,881
No. 9. South Boston, Fifth street	Delia Gleason	....	....	3,275	6,830	10,105	....	....	10,493	13,405	23,898
No. 10. South Boston, L street	Francis McCarthy	7,814	13,550	....	....	21,364	21,047	30,749	....	....	51,796
No. 11. Dover-st. Bridge	John Doherty	9,507	29,180	....	....	38,687	8,440	31,050	....	....	39,490
No. 12. Dover-st. Bridge	Mary A. Croak	....	....	1,470	3,724	5,194	....	....	7,091	10,393	17,484
No. 15. Swett street	Chas. McLaughlin	1,553	4,156	....	....	5,709	2,180	4,185	....	....	6,365
No. 16. Dorchester, Commercial Point	H. M. A. Wheeler	....	....	114	872	986	....	....	398	2,373	2,771
No. 17. East Boston, Maverick street	C. E. Dodge	2,770	5,622	....	....	8,392	4,006	6,676	....	....	10,682
No. 18. Charlestown, Chelsea Bridge	John Mullaly	468	4,800	....	....	5,268	812	10,862	....	....	11,674
No. 19. Charlestown, Chelsea Bridge	Mrs. L. N. Howard	....	....	352	1,271	1,623	....	....	1,528	4,833	6,361
No. 20. Charlestown, Malden Bridge	O. Dickson, Jr., and Jane E. Conley	1,779	6,247	96	958	9,080	4,480	12,837	137	1,679	19,133
		65,414	165,985	9,524	32,776	273,699	86,527	232,758	24,948	55,048	399,281

DETAILS OF THE BATHS.

Locality.	Superintendent.	August, 1877.					September, 1877.				
		Men.	Boys.	Wom'n.	Girls.	Total.	Men.	Boys.	Wom'n.	Girls.	Total.
No. 1. West Boston Bridge	P. L. Salmon	13,108	17,398	....	....	30,506	2,763	6,782	....	....	9,545
No. 2. Cragie's Bridge	C. C. Geyer	17,490	63,100	....	....	80,590	6,275	20,500	....	....	26,775
No. 3. Charles-river Bridge	John Gallagher	6,797	13,948	....	....	20,745	2,208	4,197	....	....	6,405
No. 4. Warren Bridge	Sarah O'Donnell	....	....	876	11,065	11,941	....	....	128	1,344	1,472
No. 5. East Boston, Border street	Edward A. Swett	6,694	17,887	....	....	24,581	2,929	6,536	....	....	9,465
No. 6. East Boston, Border street	Elizabeth P. Chadbourne	....	....	6,165	16,769	22,934	....	....	1,844	5,017	6,861
No. 7. Federal-st. Bridge	H. F. Tilton	1,990	22,738	....	....	24,728	472	3,597	....	....	4,069
No. 8. Mt. Washington ave. Bridge	John McNamara	5,584	17,382	....	....	22,966	604	2,542	....	....	3,146
No. 9. South Boston, Fifth street	Delia Gleason	....	....	21,687	23,505	45,192	....	....	5,229	7,882	13,111
No. 10. South Boston, L street	Francis McCarthy	21,152	27,357	....	....	48,509	4,749	4,882	....	....	9,631
No. 11. Dover-st. Bridge	John Doherty	11,266	26,110	....	....	37,376	2,228	4,379	....	....	6,607
No. 12. Dover-st. Bridge	Mary A. Croak	....	....	539	1,159	1,698	....	....	303	352	655
No. 15. Swett street	Chas. McLaughlin	9,590	12,440	....	....	22,030	872	2,355	....	....	3,227
No. 16. Dorchester, Commercial Point	H. M. A. Wilder	....	....	724	3,454	4,178	....	....	126	343	469
No. 17. East Boston, Maverick street	C. E. Dodge	4,794	6,839	....	....	11,633	1,484	2,767	....	....	4,251
No. 18. Charlestown, Chelsea Bridge	John Mullaly	819	15,119	....	....	15,938	220	4,223	....	....	4,443
No. 19. Charlestown, Chelsea Bridge	Mrs. L. N. Howard	....	....	2,143	8,653	10,796	....	....	312	787	1,099
No. 20. Charlestown, Malden Bridge	O. Dickson, Jr., and Jane E. Conley	5,923	14,592	283	2,253	23,051	1,737	4,120	5	232	6,094
		105,207	254,910	32,417	66,858	459,392	26,541	66,880	7,947	15,957	117,325

H. A. WILLARD,

General Superintendent.

RECAPITULATION.

Total Baths at Bath House	No. 1	97,861
" " "	No. 2	231,622
" " "	No. 3	68,241
" " "	No. 4	29,023
" " "	No. 5	72,580
" " "	No. 6	65,189
" " "	No. 7	57,427
" " "	No. 8	61,704
" " "	No. 9	92,306
" " "	No. 10	131,300
" " "	No. 11	122,160
" " "	No. 12	25,031
" " "	No. 15	37,331
" " "	No. 16	8,404
" " "	No. 17	34,958
" " "	No. 18	37,323
" " "	No. 19	19,879
" " "	No. 20	57,358
Total		1,249,697

	1877.	1876.
Whole number men bathers	283,689	345,122
" " boy "	720,533	764,286
" " women "	74,836	94,010
" " girl "	170,639	233,895
	1,249,697	1,437,313
Decrease, 1877		187,616

Respectfully submitted,

CLINTON VILES,
NEHEMIAH GIBSON,
LUCIUS SLADE,
WARREN K. BLODGETT,
EDWARD PEARL,
OLIVER G. FERNALD,
JAMES W. LOUGHLIN,
EDWARD O'DONNELL,
} *Committee.*

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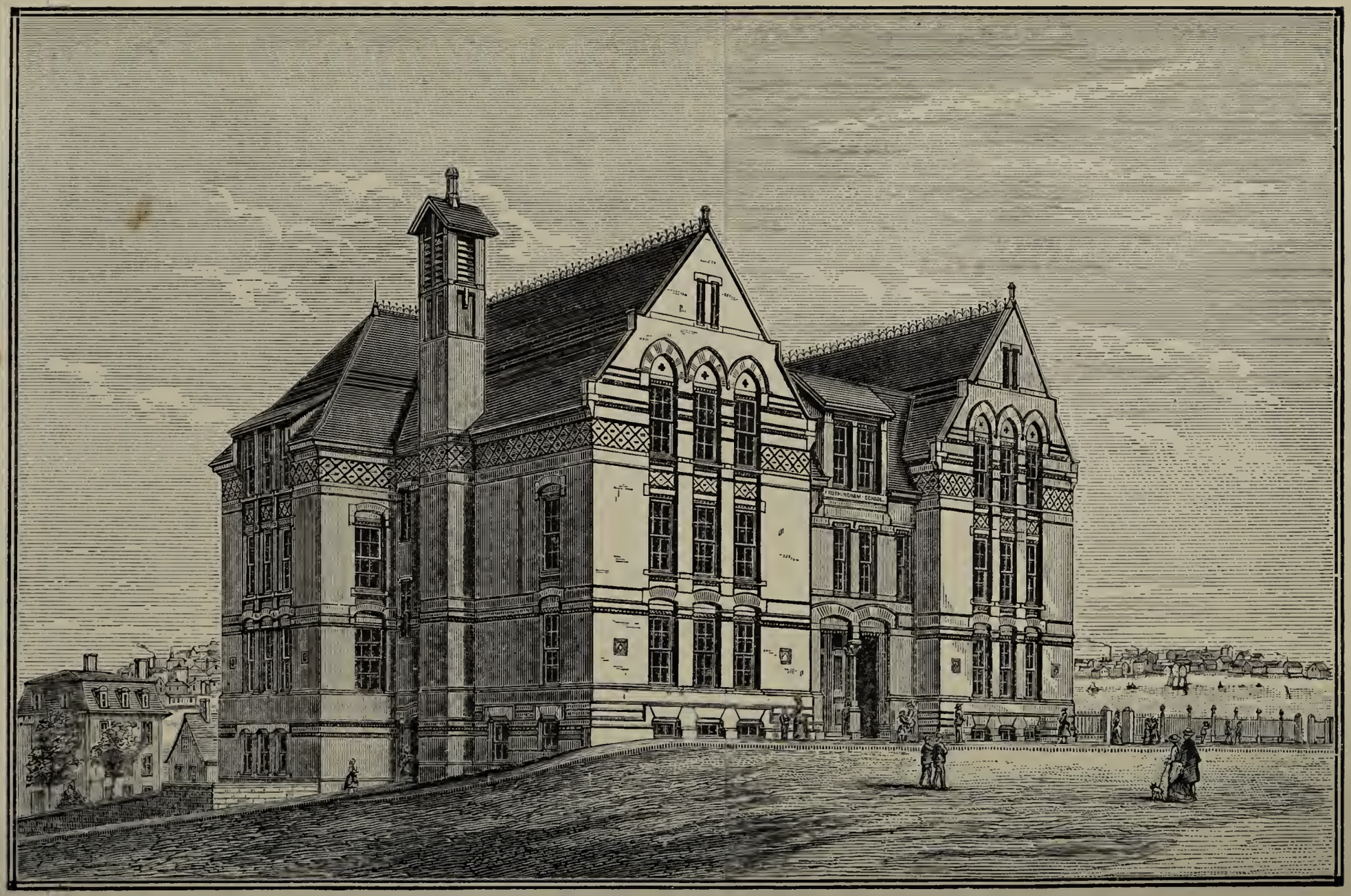

CHARLESTOWN-WINTHROP GRAMMAR SCHOOL-HOUSE, BOSTON.

1876.

SCHOOL DOCUMENT NO. 3.

ANNUAL REPORT

OF THE

SCHOOL COMMITTEE

OF THE

CITY OF BOSTON.

1876.

BOSTON:
ROCKWELL AND CHURCHILL, CITY PRINTERS,
No. 39 Arch Street.
1877.

In School Committee, Feb. 13, 1877.

Ordered, That five thousand copies of the Report of the Committee on the Annual School Report be printed.

Attest:

GEORGE A. SMITH,
Secretary.

REPORT.

The full and able report of the Superintendent, lately published, gives so circumstantial an account of the condition of the Public Schools during the past year, that the Committee on the Annual Report, now respectfully submitted, have not felt it incumbent upon them to attempt any detailed treatment of the subject. They have endeavored to supplement the Superintendent's report by such remarks on the conduct of the schools, and by such suggestions as to changes and modifications in the present system, as seemed to them likely to be useful.

REORGANIZATION OF THE SCHOOL BOARD.

The past year is memorable in the annals of the schools as having witnessed the inauguration of important changes in their administration, which, so far as it is possible to judge after so short a trial, appear calculated to advance their well-being in every respect. The history and character of these changes are well known, but we nevertheless think it well to mention them briefly before proceeding to give our reasons for considering them beneficial.

A bill was passed through the Legislature in the

spring of 1875 providing for the reduction of the School Board to less than a fourth of its former size, in order to facilitate the transaction of business and make it more thorough. While the School Board of London, with its 3,251,804 inhabitants, numbers fifty members, and that of Birmingham, with its population of 377,436, has thirty members, Boston, which has between three and four hundred thousand inhabitants, administered its schools through a Board of one hundred and eighteen persons. Some among them had never given any thought to the subject upon which they were called to legislate, and others had just that amount of knowledge which is "a dangerous thing." The rest formed a small nucleus of men well qualified for their position, though not always able to fill it to their own satisfaction, as their wisest measures were subjected to the decision of a controlling majority. In one particular, however, all the members labored under an equal disadvantage, namely, a want of time to attend to their assigned duties, however willingly they would have performed them.

The School Committee, with its twenty-five members, nominated on a general ticket, and therefore less likely to have been elected from political motives, freed also from the charge of conducting school examinations by the appointment of supervisors for that purpose, entered upon its legislative duties in January, 1876, with possibilities of usefulness unknown to the old Board. At its first meetings it adopted measures which showed that it was disinterestedly desirous of legislating for the good of the schools at any cost of time and trouble. The subsequent long

and conscientious labor given to the revision of the Rules and Regulations, with the view of bringing them into harmony with the new aims and purposes, while it tried the patience of the members, proved the firmness of their intention to spare themselves no amount of pains necessary for the achievement of success.

The re-constitution of the School Committee was a most important step in the right direction, but the creation by the same bill of a Board of Supervisors, was even more vital in its bearings upon the future of the schools. The selection of its members from the many candidates who presented themselves, and the choice of a Superintendent, who was to be their chairman "*ex officio*," were matters which demanded and obtained a careful weighing of qualifications, and much discussion. To some it appeared desirable to avoid risk of error by delaying the choice of either as long as possible; others thought the good of the schools demanded that the elections should be made without delay. Some thought that the Superintendent should be elected before the Supervisors, so that he might assist the School Board, by his knowledge and experience, in choosing those who were to be his assistants; while others felt that the order of choice was a matter of little consequence compared with that of constituting the Board as soon as possible. The elections were, therefore, proceeded with without delay, and resulted in the appointment of six Supervisors, and a Superintendent, whose many previous years of service made his claim for reinstatement in the office which he had

so long filled with widely-acknowledged success, superior to those of any untried candidates. Although the Board of Supervisors was thus very quickly constituted, it may be safely said, judging from the manner in which it has thus far done its work, that the generally wise plan of "hastening slowly" could hardly have been productive of better results.

It is only necessary to compare the past with the present condition of the Boston schools to be convinced of the great gain made in all matters relating to inspection and examination. These duties had been hitherto entrusted to committees appointed by the School Board out of their own number, made up of men necessarily much occupied with their own affairs, and, for the most part, unaccustomed to work of the kind required of them. The consequence had been, that the work which they accomplished was, as a general rule, neither thorough nor satisfactory; and it is greatly to the credit of the Superintendent, who stood at the helm, and of the masters, who faithfully performed their duties, even when by force of circumstances safe from very close scrutiny, that the schools had continued in so prosperous a condition. It is, however, a question how long they could have remained so. The appointment of teachers nominated for election in the School Board, without careful consideration of their qualifications, was an evil which had begun to show its disastrous effects by unmistakable signs. Personal solicitations, motives of self-interest, kind-heartedness, a dislike to say No, when it conflicted with the charitable desire to give a needy, though perhaps incompetent, aspirant a means of

livelihood, had led many members of the School Board to obtain teachers' places for unfit persons, and the soundness of the schools was thus in process of becoming gradually but gravely compromised. It was only through the examination of candidates by competent persons, whose certificates could be depended upon as proofs of proper qualification, that this evil could be checked.

That the conduct of examinations was felt to be one of the most important functions of the Supervisors is proved by the fact that at first it was proposed to give them the title of Examiners. They were meant to attend especially to the securing of competent teachers by means of examinations, by inspection of the schools, and by the holding of biennial examinations of the scholars to test the fitness of the teachers to impart knowledge. According to Plato, "seven years of silent inquiry are needful for a man to know the truth, and fourteen in order to learn how to make it known to his fellow-men." Without suggesting that so long a period is necessary for the formation of a teacher, there can be little question that the relative proportion of time here indicated as demanded on the one hand for acquiring knowledge, and on the other for learning how to impart it, is hardly overstated. The capacity of a teacher can only be judged when he is studied at his work, for the preliminary examination to which he has been subjected can only satisfy those conducting them as to his apparent knowledge of the subjects upon which they have examined him. A teacher of average ability who has been properly trained to his work in

a Normal School, after having carefully prepared himself to receive such training by preliminary studies whose thoroughness cannot be too complete, will, although his actual amount of book-learning may be comparatively small, prove much more useful in a school than an infinitely more learned man who has not been taught how to teach. The mind of such a man is like the drawer of a table so filled with papers that it cannot be pulled open, while that of the trained teacher is like one in which the contents are carefully arranged and labelled, so that they can be taken out and referred to at a moment's notice. Going into the schools, as the Supervisors do, without previous notification, they see the teachers at their work, and learn what their real value is. Their quickening influence to good work is incontestable, and the welcome which they have generally received will become more and more cordial as the teachers come to understand that their object is to inform themselves of the real condition of the schools, in order to keep the School Board informed of it, and not to make captious criticisms of work done or in progress. This they endeavor to make easier to the teachers and more profitable to the scholars, by judicious hints and suggestions. Thanks to their labors and to the work done by the Superintendent, which, as we view it, is of a more general scope than their own, while at the same time he both shares in, and, so far as his influence may predominate, shapes the organization of their plans for inspection and examination, Boston will in course of time know what the condition of her schools is, as she has never before known it; and we

have no doubt that the flood of light which has been, and is being poured into the darker corners of her school-rooms, will, when the dust has been swept out of them, enable her to say, with a never before so well-assured confidence, that it is a condition of which she has a right to be proud.

THE SCHOOL SYSTEM.

Without allowing ourselves to regard our school system as the most perfect known, or decrying it as those do who steadily fix their eyes upon its defects until they become blind to its excellences, we may honestly believe it to be good, inasmuch as it is comprehensive and systematic, and well calculated to fit the young for their future responsibilities as citizens. In the lower grades it aims at giving them elementary instruction, or, in other words, it strives to lay a substructure of general rudimentary knowledge, upon which the special knowledge needed in any adopted profession, art, or handicraft, can be safely reared. Up to that point where the elementary instruction needed by all, whatever their after-course in life may be, is acquired, there can be no question as to the wisdom of uniformity of instruction; but in the subsequent conduct of education it becomes a question, whether it would not be desirable to put boys whose circumstances oblige them to cease their school attendance at the age of fourteen, under a different regimen from that which should be pursued by those who intend to pass through the High School.

The Superintendent touches upon this matter in his Report (p. 41), in a manner which leaves no doubt of

his decided opinion that they should be. Your committee, being quite of his mind, desire, in the first place, to draw attention to the fact stated in the report of the Committee on the English High School for 1875, that between September, 1874, and June, 1875, the school lost 211 pupils, and to the reasons there given, namely, that the pupils had entered to acquire one or two branches not taught in Grammar Schools, or had been sent to it by their parents to be under "safe-keeping during a transitional period from boyhood to early manhood;" but without in either case having the intention of completing the High-School course. This fact, and the reasons given for it, bear upon the following points: —

1st. Whether the education which is to cease at fourteen should not be different from that which is to be prolonged until the age of seventeen, and this, again, other than that which is to be continued for several years longer?

2d. Whether, in consideration of the fact that many boys and girls enter the High Schools without any intention of completing the course, but to obtain instruction for a short season in studies not taught elsewhere, as, for instance, French, it would not be advisable to take away the excuse for so doing, by judicious changes suited to meet their case?

3d. Whether, by this course, the great central High Schools would not be made to fulfil their real mission, even more completely than at present, or than they can do, if their position is weakened by the multiplication of schools of their kind?

If the first question is regarded as one of theory,

without consideration of the practical difficulties involved in the carrying out of such a plan, we presume that it will be generally answered in the affirmative. If, however, these difficulties are considered, and thought to be too great to be overcome, we may ask whether they cannot be partially met by certain changes in the prescribed courses of study in the Grammar Schools. For instance, is it necessary that pupils who intend to go through the High School should study natural philosophy, book-keeping, and the Constitution of the United States, in the Grammar School? On the other hand, would it not be well to give those whose education is to cease with the Grammar School, some knowledge not only of the requirements laid down in the present programme, but of such subjects in arithmetic, for example, as the practical application of square and cube root, the mensuration of surfaces and solids; and in history to teach them something about the two great countries of antiquity? Those who are not intended for the High Schools might take the general history of the world, and the French language, in lieu of Geography and English Grammar; and those who are, could be limited to the history of the United States.

Such division in the courses of study suitable for the two classes of pupils could be made, if part of the examination for the High School was held at the end of the last year but one of the Grammar School course, — a plan which would work well both for those who are not to enter it, as they would use the third year in acquiring useful knowledge otherwise not within their reach; and for those who are,

because during that period they would not have to carry such a mass of details in their minds as at present. Having passed the examination at the end of the second Grammar-School year, such children would be ready for admission in the master's class, which answers the objection made to the plan, that all pupils do not know at the end of the second year whether they are to enter the High School or not. It may here be remarked that division examinations have been tried at Harvard College, and found to work admirably. If adopted in the Grammar Schools, they will lessen that tendency to overcrowd studies, during the last year, which sometimes shows itself. Moderate changes, such as those above suggested would prove the elasticity of our Grammar-School system, and add greatly to its usefulness.

The more it is stretched to meet existing requirements, the more will they satisfy those who now consider that new High Schools are wanted in the remoter quarters of the city; and thus the High Schools now existing in its centre will be more likely to remain what they are at present, adapted to the highest kind of instruction. That they are so regarded by the public at large is in some measure proved by the statistics of attendance at the English High and the Girls' High Schools given in the following table, which shows the number of pupils who make long daily journeys to attend them, even from parts of the city where other High Schools exist: —

	English High.	Girls' High.	Latin.
East Boston	81	56	20
South Boston	113	114	45
Charlestown	18	3	33
Roxbury	18	91	18
Dorchester	19	25	26
Brighton	0	3	5
West Roxbury	5	13	22

We give this table, which was prepared for the Committee on School-Houses, as it is not included in the Superintendent's report.

For details as to the present state of the High Schools, your committee must refer to the promised report of the Committee on High Schools, which has not yet been placed before them, to other reports of district committees not at present furnished, and to the thirtieth semi-annual report of the Superintendent, in which the condition of schools of all grades is fully described.

SCHOOL HYGIENE.

The section of the Superintendent's report which treats of school hygiene seems to them especially valuable, and they heartily endorse the views therein expressed. The extracts quoted from the report of Dr. D. F. Lincoln are full of wise suggestions, and cannot but be of great help to the School Board in taking steps calculated to secure the healthful

condition of the schools, towards which the appointment of a medical inspector, suggested by Mr. Philbrick, on p. 81 of his Report, would seem to be the first and wisest move. Even if this is not done immediately, something might be effected towards the prevention of the spread of such diseases as scarlet fever, whose virulence at the present time has caused no little alarm, by the enactment of a law requiring the masters of the public schools to refuse to allow children belonging to a family in which any one or more of the members are suffering from scarlet fever, or any other contagious disease, to enter their schools.[1] At page 78, the Superintendent refers to a paper, also written by Dr. Lincoln, upon the sanitary requirements of school architecture, and recommends that it be reprinted with the present annual Report of the Board. Your committee heartily endorse this recommendation, as they consider this paper to be a full and masterly treatment of a most important subject.

THE TEACHERS' ASSOCIATION.

Among the orders lately passed by the School Board there is one relating to the establishment of an association called the "Teachers' Association of the City of Boston," for the purpose of extending aid to sick and superannuated teachers, which seems to your committee to be altogether wise and right.

[1] This paragraph was written before the passage of an order offered by Mr. Finney in the School Board, Jan, 8th, 1877, relating to this subject, and previous to the adoption of certain measures by the Board of Health, which promise to secure the desired object.

That teachers who have spent the best part of their lives in the service of the city should, when incapacitated by age or infirmity, be left to their own resources, without any recognized right to assistance, seems unworthy of a city which is noted for its appreciation of the value of those educational interests which such persons have labored to advance as long as they were able.

VACATION SCHOOLS.

The establishment of Vacation Schools, which is strongly recommended in a late Report of the Committee on Industrial Schools, seems to us so important and useful a measure that we venture to say a few words about them. Such schools, as therein stated, are intended for those children who, for want of means, cannot leave the city during the summer months, and who, if left, without occupation, to roam about the streets, run the risk of contracting idle and perhaps vicious habits. At Providence, where schools of this kind have been established with marked success, they are attended by about 1,100 children; from which fact we may argue that in Boston they would be attended by a much larger number. Forced by the necessity of gaining their daily bread, such children as we refer to, generally enter upon the labors of life at far too early an age for their well-being. This is an evil which cannot be prevented; but it can be somewhat alleviated by giving them better opportunities for education in schools of the sort here contemplated. What they

need is instruction in branches of study calculated to prepare them for the work in which they are already engaged, or will shortly be engaged in, rather than in those which belong to a specially industrial training. To soften their dispositions and elevate their tastes, we would have them taught Drawing and Music; to save them from many ills which proceed from ignorance of natural laws, we would have them learn something of Physiology; and to help them to make a wiser and more economical use of material, we would have them instructed in Natural Philosophy. These branches of study would be, in our opinion, best taught through lectures, made interesting by the use of diagrams, and apparatus of various kinds, with which our public schools are well supplied. If it is asked who is to deliver these lectures in the Vacation Schools, we answer that there can be little doubt that volunteers would readily be found among the masters and teachers in the employ of the city, enough of whom, if we know their spirit, would gladly give a few days out of their vacation to work of so charitable a nature. In regard to the division of the summer vacation of ten weeks, so as to allow the necessary time for the cleaning and reparation of such school buildings as might be assigned for the use of the pupils in the Vacation Schools, it has been suggested that two weeks at the beginning and two weeks at the close of the vacation would amply suffice for these purposes, leaving six weeks, of five half-days each, for those of instruction. That hundreds of parents would, by this arrangement, be

saved from the feelings of anxiety and dread with which they now regard the summer vacation, and thousands of children be benefited and made happy, no one can doubt; and, if it be reasonable to believe so, could a wiser course be taken by the School Board than that of authorizing the organization of Vacation Schools?

CITY CHARITY.

The question as to how much aid can be safely extended to needy children, in the public schools, whose ragged clothing and bare feet strike a visitor as a standing reproach to the city which they inhabit, is one not easily dealt with. Your committee is aware that attempts have been made to alleviate their wants, and abandoned, because it seemed impossible to save the city from being imposed upon; but they, nevertheless, venture to suggest renewed effort upon the following plan, which, if adopted, might tend to alleviate much real distress. Let the masters of the public schools in certain districts be required to keep lists of children really in need of assistance, and to send them in at the beginning of the winter to the Chairman of the Committee on Accounts, who, after causing careful investigation to be made by the Truant Officers, can ask for an appropriation of money to be spent in buying garments and shoes for the needy.

PRIMARY–SCHOOL BUILDINGS.

The defective condition of certain buildings in the city used as Primary Schools has been pointed out to

the Board, and there is no doubt that it is such as to demand immediate attention. Those in the Sherwin District were mentioned at a late meeting as utterly unfit for the purposes to which they are devoted. A visit to one of our new and admirably ventilated Primary School buildings, such as that on Fifth street, in South Boston, followed by an inspection of the Gogin-street Primary, in the same quarter of the city, which may be taken as an example of everything that is most objectionable, could not fail, by force of contrast, to impress any member of the School Board with a sense of the wide gulf which separates what all our Primary buildings ought to be, from what some of them are. In the first, the high, well-aired and commodious rooms are filled with a healthy, happy-looking set of children, whose brains are evidently in a normally recipient state, whose eyes are not in danger of being ruined by cross-lights, and who are not placed in peril of their lives by draughts of cold air pouring in on all sides when the windows are opened, or of dying through the effects of poisoned air if they are kept shut; in the other, the low, long and narrow rooms are crowded with boys or girls, whose thinking faculties are reduced to a minimum by the stifling atmosphere; or who, if this is cleared by the admission of air from windows on opposite sides of the room, must, in many cases, pay for the temporary alleviation by subsequent coughs and colds, or severe fits of illness.* The spectacle of six or seven children sitting between two open windows,

* See Dr. Blake's order, offered Dec. 19th.

in the winter time, in order that the other forty in the room may be able to breathe, is not calculated to rejoice the heart of even a moderate lover of his kind. A full description of what is needed to make Primary School buildings satisfactory is given in the Superintendent's report, as also in the papers of Dr. Lincoln, to which he refers.

DRAWING.

Since the introduction of the present course of instruction in this branch of study into our schools, the Committee on Drawing has published several annual reports, illustrated with heliotype reproductions of pupils' work, selected from the specimens shown at the annual spring exhibition. This course was not practicable for the present year, as the best drawings exhibited in Boston last May were taken to Philadelphia to form part of the Massachusetts Exhibit, where, it may be added, they attracted general attention and commendation. A short report (reprinted in this volume) was issued by the Drawing Committee in June last, but as it was simply explanatory of the revised programme of instruction, some things remain to be said on the subject which may properly find place here.

So much has been already written and spoken about Drawing in the public schools, that the *pros* and *cons* are generally known to all who take an interest in the matter, and need not therefore be repeated here. Bearing the latter in mind, it is a satisfaction to those who believe in the important

influence of the study upon the industrial future of the State, to see that time has only strengthened the general feeling as to the force of the arguments used in its favor, and made the weakness of those employed against it more and more evident. The three letters written by the superintendents of public schools of Boston, St. Louis, and Milwaukee, lately published in the "New England Journal of Education," show that Drawing is now heartily accepted as a necessary and most useful branch of study, by men of acknowledged ability and experience in different parts of the Union, and give strong evidence as to the efficiency of the system of teaching it, which we owe to our Director of Drawing, Mr. Walter Smith. As answering objections still made in certain quarters concerning its possible interference with other studies in the schools, the words used by two of the superintendents may here be quoted: —

"Drawing," says Mr. Philbrick, "if properly taught, is extremely useful as an aid in other studies; and indeed, in my judgment, it quite compensates for the time it takes, by facilitating instruction in other branches. This study was made so prominent at the outset, and so much was attempted at its introduction, as to excite apprehension in some minds lest it should rob other studies of the time and attention that belong to them. But such has not been the result. Drawing is now fairly worked into grade in all classes, from the lowest Primary to the highest in the High Schools, —being taught altogether in the Primary and Grammar grades by the regular teachers; and I have never yet seen any evidence whatever, that this instruction in Drawing has produced unfavorable results in the other branches; while, on the other hand, it has been, without doubt, of advantage to some of them."

Upon the same point, Mr. McAllister writes: —

"Another experience, also in connection with this matter, is worth mentioning. In no way has Drawing been found to interfere with the progress of pupils in their other studies. The amount of work done is just as large, and the quality as good, as before Drawing was introduced. If I were to venture an opinion on this subject, I would say that the time devoted to Drawing, so far from being lost, results in strengthening the mind of the pupil in other directions, and increasing the number and variety of his mental resources."

As to the value of Drawing to the country, the same gentleman writes: —

"I believe the introduction of Industrial Drawing into our common schools to be the first step in the organization of a system of Industrial Education, which, if fully carried out, will be productive of effects upon the social character of the working classes and the wealth of the nation, which even the most sanguine would not dare, at this moment, to predict."

The following passages from the letter of Mr. Harris show how highly he estimates the study of Drawing as a branch of public education, and what he thinks of the fitness of our adopted system for teaching it: —

"I am of opinion that the State of Massachusetts, which has adopted this system so generally, and done so much for instruction in this important branch of education, will soon stand in the very first rank, among industrial peoples, for the tasteful ornamentation of its manufactures. In this respect St. Louis, which outranks other Western cities in the variety and aggregate value of her manufactures, aspires to emulate Massachusetts, and therefore regards all money expended in Industrial Drawing as an invest-

ment that will return a hundred-fold to the wealth of the city through the increased value of her products. I value the Smith System especially for its completeness of system and perfect gradation, embracing, as it does, courses in Free-hand, Geometric, Model and Object, Perspective and Mechanical Drawing, and unfolding an admirable method of developing and conventionalizing original ornamental designs, as well as presenting, in an intelligible form, the historic evolution of ancient ornament. While this system surpasses others in scope, it excels them also in perfection and consistency of details."

Other extracts of the same character might be made from the three letters, but it seems hardly necessary to make them, as those made, sufficiently explain the views of the superintendents. At the close of Mr. Philbrick's letter he thus expresses his satisfaction in the share which he took in the introduction of the study of Drawing in the Public Schools: —

"The introduction of Drawing into our schools I regard as one of the most important and practical educational steps ever undertaken in this city, and there is no part of my work as an educator which I look back upon with more satisfaction, than upon my efforts to secure efficient instruction in Drawing in the public schools of this city and State."

It will be observed that in the above extracts Mr. Harris, on the one hand, values our adopted system especially for its "systematic completeness and perfect gradation," and that Mr. Philbrick speaks with complacency of his past efforts to secure "efficient instruction in Drawing in the public schools," thereby leaving the reader to infer that, as at present conducted, he considers that end gained. These opinions as to the fitness of the system for its purpose —

which, to use the words of Mr. McAllister, the Superintendent at Milwaukee, is to "divest the study of its special character, and place it on a level with the other branches in the common schools"—are shared by the latter gentleman, who finds in it "the principles which seemed to him fundamental to any attempt at making Drawing a common-school study." To this subject, in a later portion of his letter, he thus refers:—

"I think it only just to state that, in my opinion, no small part of our success has been due to the system adopted. The sound foundations in which the entire course of instruction is based, its admirable adaptation to the organization and objects of the public schools, the accurate methods by which the advancing steps are systematically developed, and the practical direction which is given to the pupil's work from first to last, have all been made so apparent to us, that no objection yet put forward from any source has in the least shaken my confidence in Professor Smith's principles, or the value of the text-books in which they are embodied."

Having now seen what is the judgment of three persons, who, as all will agree, have earned the right to be listened to when they discuss the fitness or unfitness of any system of instruction for school use, we wish to quote some passages from the report of Professor Grundauer to the Minister of Public Instruction in Austria, upon Drawing in the public schools of Vienna, simply to show how close the parallel is between it and that of our own schools. The opening passage describes to the letter our own condition before the introduction of the present system:—

"Drawing was formerly considered as an art of amusement, for whose successful study natural and special aptitudes were neces-

sary. No one thought of teaching it according to a systematic method. Pupils were allowed to draw a little of everything, arabesques, flowers, monuments, machines, etc., and this without enabling them to comprehend the sense or the aim of their work. Experience has now proved that an *exact knowledge of elementary geometric forms* must form the general basis of all instruction in Drawing, and that consequently for beginners, so soon as they have exercised themselves upon straight and curved lines, there can be no better study than that of regular figures formed by the division and combination of such lines. . . . . Everybody now recognizes that Drawing must be taught on a methodical plan, and that all purely mechanical processes must be avoided."

The object of school instruction in Drawing and the method by which it is to be given are identically stated in the Austrian report of 1870 upon the pedagogical organization of Primary Schools, which we quote from the chapter on the teaching of drawing, in M. Buisson's Report on Primary Instruction, at the Universal Exposition of 1873, at Vienna: —

"The object of this instruction is to form the eye and the hand of the pupils, to teach them to seize forms and masses clearly and to distinguish them surely; to exercise them in the linear representation of the relations of things in space, and the figuration of objects ending in plane surfaces, straight and curved lines; in short to make them capable of drawing objects of simple form in nature. Geometrical instruction, which is given in the middle and upper classes, comprehends the study of triangles, quadrilateral figures and regular polygons, of the circle, the ellipse, the prism, the pyramid, the cylinder, the cone and the sphere."

In Belgium as well as in Austria the proper foundation for the teaching of the arts of design is considered to be the study of regular forms, and it is precisely upon this basis that our system rests. Its

more directly industrial aim is manifested by the study of design, which is begun in the Primary Schools, and carried through the Grammar into the High Schools. In the first it deals only with regular forms, being in fact a simple exercise in their combination; in the second it widens its material by allowing the use of plant forms, and requiring attention to the laws of growth in dealing with them; while in the third it attempts greater variety, calls in the aid of colors, and takes a more evidently artistic aspect. The artistic can, however, be compassed to a very small degree even in the highest grades of our public schools, on account of the necessary limitations within which the study of Drawing, if permitted at all, must be kept. It has been admitted as a means of giving correctness to the eye, accuracy to the hand, and quickness to the faculties of observation. Such cultivation of the æsthetic instincts as special instructors and regular teachers are capable of giving, aided by the use of casts, flat copies and natural objects in the High School, is encouraged, and, when successful, highly appreciated; but it cannot, from the nature of things, be carried very far. Erroneous ideas about what Drawing in the public schools aims at, and a hitherto unsatisfied desire for artistic instruction of a high order elsewhere, fully account for the opposition which has from time to time manifested itself to the adopted system; but we trust that the first are now dispelled by the explanations which have been given, and that the second will find their satisfaction in the school of art lately opened at

the Museum of Fine Arts, under the direction of Professor Grundmann, from Antwerp.

Before entering into details concerning the study of Drawing, as at present conducted, it may be well to correct certain unfounded reports, that the time devoted to Drawing in the schools has been cut down and the course of study considerably circumscribed. Any one who will compare the programme of instruction for 1875–6 with that for 1876–7, will see that in both the allotted time is two hours per week in the Primary, Latin and High Schools, and one hour and a half in the Grammar Schools. They will further see that the subjects taught are identical, viz.: free-hand, model, memory, design, geometry and perspective. The only change is in the distribution of subjects, and the order in which they are taught in the Grammar Schools, where the February promotions, under the last year's programme, involved waste of material in case books were left half completed at the time of promotion, or confusion caused by the carrying of such books into a higher class, and the consequent use of two sets of books in that class. By the present programme, which has now been in operation for several months, these difficulties were removed and the smooth working of the instruction given was insured. Much thought was bestowed upon the matter by the Director of Drawing, who deserves the thanks of the committee and the masters for the successful solution of a problem of no little difficulty.

Desirous of knowing the minds of the masters upon various points, the committee requested Mr. Charles Barry, one of the special instructors, to visit

the Grammar Schools and obtain written answers to the following questions addressed to each of the masters: —

1. Are large models necessary to the successful use of the model-books in your school?

2. Do you desire to have a special teacher in Drawing supervise the work done in your school?

3. Can you mention any deficiencies in apparatus for teaching Drawing in your school?

4. Is the study of Drawing according to the programme affected by promotions or other changes in your school?

The master of each Grammar School, besides answering these questions, furnished statistics as to the number of pupils and teachers in his school; as to what proportion of teachers held full diplomas, and how many attended the normal art classes, and filled up blanks under the following heads: Name of teacher. Does he or she understand Drawing well enough to teach it properly in her class? belong to any normal art class? hold any certificate of ability to teach Drawing? Gives how many lessons per week? Is any Drawing other than design done out of school? Time given to design in school and out of school. Is instruction given by the teacher upon the blackboard? Time given for model-drawing from solids. Has ruling in this study been allowed? Are the principles of model-drawing taught by the teacher from the blackboard?

The answers to these questions gave the Drawing Committee a great deal of information which was of use to them and the Director in arranging the work

for the present school year. For instance, in regard to the amount of supervision needed from the special instructors, including not only the examinations of drawings, but also counsel to the regular teachers, explanation of difficulties which they had not been able to overcome, etc., etc. It had been found by past experience that many of the Grammar Schools, in which either the master or one of his assistants had passed the Drawing examinations and received certificates, could not, in the opinion of the master, dispense with visits from the special instructors. The thirty-six schools which asked for such monthly visits were accordingly divided between three of them; as the fourth, Mr. Hitchings, was to devote his time altogether to the English High School. By this arrangement Mr. Barry took fourteen Grammar Schools under his charge in addition to the Latin School on Mondays and Thursdays, and the West Roxbury High Schools on Wednesdays, throughout the year; Mr. Baker took eleven Grammar Schools, in addition to the Charlestown High on Tuesdays and Fridays, the Brighton High on Wednesdays, and the Deer Island School, which he agreed to visit once a month, with the exception of December; and Miss Bailey, eleven Grammar Schools, in addition to the Dorchester High School on Tuesdays and Fridays, and the Girls' High School on Mondays and Thursdays. Besides all this work, these three special instructors undertook to visit each of the Primary Schools connected with the Grammar Schools under their charge, once in every three months. It will be acknowledged by any impartial persons who consider the amount of

labor involved in the carrying out of this scheme by the special instructors, that they have a great strain put upon them, and those who know that none of it can be dispensed with until the regular teachers are much more generally qualified to give instruction than they are at present, especially in the subjects of model-drawing and design, will agree that to dispense with any of them would gravely compromise the ultimate success of these branches of study in the schools. This economical measure cannot be safely taken until the lessons given to teachers at the Normal School by its master, and by the Director of Drawing, shall have enabled those who have not yet passed their examinations to obtain certificates by so doing. Many have already done so, and many, who, having done so, still feel themselves in need of further light, return year after year to the normal classes with the most commendable zeal; but, nevertheless, as the statistics above quoted show, more than one hundred Grammar-School teachers have not yet passed their examinations. The normal classes have, however, been attended by more than three-fourths of the city teachers, and more than one-half have received certificates of competency to give instructions in Drawing after examination. The effect of this shows itself in the more equal results obtained from the schools. On this point the Director of Drawing, in his notes on Drawing for the year 1876, says with truth: —

"There can be no more reason for the superiority of one school to another in Drawing or Music than in Writing or Arithmetic, and it is to be regarded as a sign of general advancement that the distinction obtained by certain schools in the teaching of Draw-

ing is becoming a thing of the past, without any deterioration on their parts. As all the teachers acquire skill in manipulation, and experience in teaching Drawing, the few who used to monopolize this skill, and to display it by the attainments of their pupils, must expect to be equalled in the results reached."

Such a nearer equalization of results was perceptible at the annual exhibition of Drawing in March last. To those who remembered former exhibitions sufficiently to enable them to compare it with them, it was clear that the teaching of the subject was more generally good, or, in other words, that the regular teachers had become more competent to give instruction.

The interest of the public in the last exhibition showed no abatement, but rather an increase upon that manifested in former years. During the three days of its continuance 30,266 persons visited the two halls containing the State and City exhibitions, and on the Wednesday afternoon additional police officers were required to regulate the ingress and egress of the crowd.

As the evidence afforded by this exhibition, both as to improved results and to the interest of the public in the subject of Drawing in the public schools, may be said to be conclusive, and as the cause of the former is patent, we may congratulate ourselves on the increased facilities offered to teachers for instruction since the commencement of the present term, at the Normal School. In the large hall at the Rice-School building, weekly lessons are now given by the master, Mr. Dunton, and the Director of Drawing, Mr. Walter Smith, not only to the pupils of the Nor-

mal School, but also to the regular school-teachers, who until this year were taught by the Director and the special instructors in school-buildings situated in different parts of the city. Effort is thus centralized, the influence of the Normal School widened, and its true mission more completely carried out. From this change we may look for excellent results both to the Normal School and to the regular teachers who are permitted to share in its benefits.

Among minor but at the same time important improvements in the Drawing system, we may mention the substitution in many of the Grammar Schools of large-sized models of geometrical solids for the small ones hitherto exclusively used. This was asked for by nearly all the Grammar-School masters, who felt that they were essential to the successful teaching of model drawing. The examination in this subject, which is shortly to take place in accordance with the regulations of the programme, will, as we have reason to believe, show that they have been of great use. In concluding this part of the Annual Report which relates to Drawing in the public schools, your committee is happy to be able to state that its condition appears to be in every respect more satisfactory than at any previous period since its introduction under the present system.

FREE EVENING DRAWING SCHOOLS.

These are at present five in number, situated at Charlestown, East Boston, Jamaica Plain, Dorchester, and Tennyson street, the last being in fact two

schools; one for drawing from flat copies and casts as well as for design, the other for mechanical drawing and building construction. Both are, however, placed under one principal, to whom all questions connected with their general conduct are referred, although practically he presides over the first only. The other schools are under the direction of acting principals, who, in consideration of the responsibility placed upon them, are paid one dollar more per evening for their services than the assistants. This arrangement, which was made at the commencement of the present term of the Evening Drawing Schools in October, has worked well, and on this account, as well as because it is an economical measure, is to be commended.

The following table shows the number of pupils registered in these schools, and the average of attendance during the three last months of the year, with the exception of the Dorchester School, for which statistics are given only during October, and of that at East Boston, of which it gives information during October and November. It will be observed that the number of pupils registered at each school has increased each month, thus proving an increase of public confidence in the efficiency of the instruction given. The increased average of pupils over last year points in the same direction. Thus, at page 37 of the Superintendent's report, he states that the average number in 1874–5 was 412, taught by sixteen teachers, while our table shows that in October, 1876, there were 681 pupils, taught by fourteen teachers. With but one exception, the Evening Drawing

Schools are located as before. The transfer of the East Boston School from Webster street to its present excellent quarters over the Branch Public Library has had a most beneficial effect upon the attendance, as it is easily reached and altogether well situated.

OCTOBER, 1876.

Schools.	No. of Sessions.	Whole No. Registered.	Average No. belonging.	Average Attendance.			Average No. teachers, including Principal.	Average No. pupils to a teacher, excluding Principal.
				Males.	Fem.	Total.		
Tennyson St.	18	280	185	76	10	86	5	22
Charlestown	18	201	190	55	3	58	2	29
East Boston	18	272	144	. . . .	. . . .	79	3	26
Dorchester	9	82	80	46	17	63	2	31
Jamaica Plain	10	91	82	44	18	62	2	31

NOVEMBER, 1876.

Tennyson St.	16	312	214	85	11	96	5	24
Charlestown	16	260	230	63	5	68	2	34
East Boston	16	286	161	. . . .	. . . .	58	3	29
Dorchester	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Jamaica Plain	8	96	83	40	14	54	2	27

DECEMBER, 1876.

Tennyson St.	16	338	180	75	9	84	5	21
Charlestown	16	285	250	57	7	64	2	32
East Boston	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Dorchester	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .	. . . .
Jamaica Plain	9	100	83	32	10	42	2	21

MUSIC.

The condition of musical study in the Public Schools was fully and ably reported each year, until Dr. J. B. Upham, to whose efforts the City of Boston especially owes the establishment of the present excellent system, retired from the School Board, and consequently ceased to hold the office of Chairman of the Committee on Music. Since that time, with the exception of a very short report, relating solely to the Programme of Instruction, the annual series of reports has been interrupted, and as the musical exhibition by the pupils of the public schools has been also temporarily discontinued, the public has had scant opportunity for information about a branch of study in which a wide interest is felt. Ample details concerning its former history are to be found in the series of reports above referred to, among which that of 1871 may especially be mentioned as explanatory of the system still pursued, with results which should make it safe from changes calculated to impair its efficacy.

The changes made within the last two years are not, as it seems to us, in all cases for the better. The diminished supervision, for instance, over the Primary Schools, which was ordered by the School Committee as a step towards that cessation of special instruction which can only be reached when all the regular teachers are fully qualified for their task, may do little harm in some schools, while in others a tri-monthly instead of a monthly visit from a special instructor seems hardly sufficient. It is true, that in response to a circular issued last spring by the Committee on

Music to the masters of the Grammar Schools, in which the question was asked, "Are the Primary-School teachers of your district able to teach what is required in Music?" they very generally said, Yes; but still it is important to have this fact clearly ascertained by examinations as soon as possible. It is most desirable that we should know the quality of teaching in the Primary Schools, because the after-progress of the pupils depends so much upon its being good. In the Report for 1861 reference is made to the then existing doubts of many persons as to the "practicability of doing anything effectually among the children of the Primary Schools." The committee was, however, so firmly convinced that "much could and ought to be done," that it successfully resisted the doubters, and brought about the compilation of the present charts and text-books, whose effect has been to justify their conclusions so amply. Those who are unacquainted with the subject have little idea how easily very young children can be taught to read music, or, in other words, to give with the voice the sound corresponding to the written notes of the scale. They also know as little how this simple and invaluable faculty is developed with increasing difficulty as a child grows older, until, if he delays the attempt until he is a man, it gets almost beyond his reach. Both on this account, and because we regard singing in the Primary Schools as the most restful and pleasurable of exercises, we respectfully express the hope that the limitation of singing to ten minutes, lately made by the School Board, may be reconsidered, and that the chil-

dren may be again allowed to sing during ten minutes in each session.

We have yet to speak of a great change made in the department of musical instruction, which was rendered necessary by the growth of the city through recent annexations. We refer to the substitution of the so-called vertical for the horizontal system in the work of the special instructors. Owing to the great widening of the area throughout which lessons must now be given, it is no longer practicable to keep all Primary or Grammar School instruction under the charge of one and the same special instructor, as so much of his time would be consumed in getting to and from widely separated schools. To reduce the time necessarily spent in the transit from one school to another to a minimum, the schools are now divided into as closely lying groups as possible, and a certain number of these, both as to Primary and Grammar supervision, are placed under the care of one instructor. The High Schools continue, as before, in the charge of the Director of Music, Mr. Julius Eichberg, but the lower grades are divided between the six special instructors in the following proportion: Mr. Sharland has eight Grammar Schools, of which he visits one on Mondays, Wednesdays and Saturdays, and two on Tuesdays and Thursdays, besides his tri-monthly visit to each of their dependant Primaries. Mr. Holt has nine Grammar Schools under his charge, with their Primaries; Mr. L. W. Mason, Miss Garlin and Mr. J. M. Mason the same number; and Mr. Hiram Wilde, ten. Besides this regular work of instruction and supervision, the Director and three of the special

instructors have each undertaken to give a series of lessons at the Normal School to its pupils and to the regular teachers in the public schools. Mr. Luther W. Mason's course upon the teaching of Music in the Primary Schools has already been given, that of Mr. Holt upon Grammar-School instruction is in progress, and when completed will be succeeded by a course on the same subject by Mr. Sharland, and this by another on High-School instruction by the Director of Music.

The organization of these courses at the Normal School is without question the most important step taken by the present Committee on Music. It opens to the special teachers in all grades of schools an opportunity of obtaining instruction such as they have never before enjoyed, and will make the holding of examinations and the granting of certificates of capacity to teach for the first time possible.

We do not think it necessary to enter into minute details concerning the musical system followed in our public schools, as a lucid and minute account of it was given in the report of the Music Committee for 1871, and the short report of the present committee, included in this volume, gives the programme of instruction, to which all interested persons may be referred for information. Those who give themselves this trouble will, if they have not already done so, hasten to test the value of the system by visiting the different grades of schools for the purpose, and none can do so without being both surprised and satisfied. The level of proficiency attained within the limits fixed for each grade is so even, that the visitor need hardly trouble himself to

inquire which schools are best worthy of his inspection, nor shall we help him by naming any, as we know that he can hardly go wrong. He will find in any Grammar School a body of pupils with fresh, young voices, able to sing a two, or even a three part song, of reasonable difficulty, which he may please to write upon the blackboard, though they may have never before seen or heard it. If he should examine them he will discover that they know all common measures, are as familiar with the chromatic as with the diatonic scale, can tell him what key any piece of music is written in, and that they can be skipped about through major and minor intervals with little risk of error. The sort of training to which they have been subjected has given them so accurate a knowledge of the position of each note in any scale, that they will recognize its relative position to the tonic, whatever that may be. Thus, for instance, if a series of perfect chords in different keys, as those of *do*, *sol*, *re* and *mi*, be written with their signatures upon the blackboard, the pupils in the upper classes will sing the notes as they stand in each scale; or, to take another exercise as exemplifying skill in reading music, if a series of triads be written, and a succession of notes, which, when sung will form a melody, be touched with a pointer, the voices will follow it correctly, even when the time is somewhat of the presto order. If the class be divided, and a two-part harmony, into which notes of different value, and even an occasional suspension, may be introduced, is picked out with two pointers, the result will generally be equally good. The process is in

some measure analogous to that of selecting single letters from a heap to form coherent sentences, and the listener will derive the same sort of pleasure from the progressive result, as that which he would obtain from watching an artist as he worked out a figure upon a blank canvas, or modelled some graceful shape out of a lump of plastic clay.

To give this power of singing at sight is after all the great aim of musical instruction in our public schools, and this for two reasons, one of which concerns the individual who has been enabled to acquire it, the other the public, whose means of elevated enjoyment are increased by it. The advantage to the individual of being made able to take part in choral exercises, and thus aid in presenting the works of the great composers to the public, need not be dwelt upon; nor need we dilate upon the many hours of happiness which it will assuredly add to his life at home as well as abroad. With his gain that of the public goes hand in hand, for the mass of singers trained to read music correctly in our schools will more and more supply the material of our great choral societies, which are among the most important factors of the very best sort of high and healthy pleasure for our citizens at large. Such being the case, the city may well be considered to act wisely in making a large annual expenditure for instruction in music, as it is sure to receive a full equivalent in the ever-increasing army of trained singers which it produces.

In a recent report to the Committee on Music, the Director says: —

"I hope I shall not be considered as over-sanguine when I say that the time is near when many hundreds who graduate annually from the schools will, by taking part in our great choral performances, contribute to increase that improvement in their character which has lately been so manifest."

We quote the following passage from Mr. Eichberg's report to the committee, written after a tour of inspection, as the favorable opinion expressed in it tallies with that resulting from our own observations: —

"It gives me pleasure to testify to a marked advance in most of the schools which I visited. In many of the upper classes of the Grammar Schools I found a very satisfactory readiness in singing at sight such exercises and solfeggios as I placed on the blackboard in order to test it. Most of the classes have gained in clearness of enunciation and evenness of delivery, and the tendency to shout, which especially manifests itself in boys' classes, has diminished to a great degree."

Mr. Eichberg points out a want in many schools which can be supplied at a small expense, and to their great advantage; namely, that of pitch-pipes, uniformly tuned.

"If," he says, "it is difficult even for a professional musician to pitch a song correctly without the aid of an instrument, we cannot wonder that persons of a more limited musical culture like our teachers in the public schools are unable to do so with any certainty. They take the pitch now too high and now too low, and the effect in the long run is injurious to the pupil's ear and voice."

In concluding this report, your committee would express the hope that the School Board may sanction the holding of a musical exhibition in the spring, which

will enable the general public to judge of the present proficiency of the school-children. The exhibitions which were held in past years have been discontinued of late; but although it may not be advisable to make them annual, it would be, for equally good reasons, most unadvisable to discontinue them altogether. We do not suppose that this course was ever contemplated, and, if not, the interval which has elapsed since the last one was held would seem to be sufficiently long. No one who has ever attended such an exhibition can forget the impression produced upon him by the peculiar resonance of hundreds of fresh young voices blending together in unison, or uniting in the harmony of part-songs. Of all choral singing, other things being equal, it is the most moving, the most sympathetic; and when we add to this the emotional interest taken in it by parents, relations and friends, which works magnetically throughout the audience, we may safely say that one of the pleasures which the citizens of Boston would be most reluctant to give up would be that of hearing the school-children sing, as they are now able to sing, at least once in three years.

Should it be possible, as has been suggested, to hold such a festival in the new Tabernacle on Tremont street, with a chorus of 2,000 children, we may predict a success which will long be remembered in our city.

CHARLES C. PERKINS, *Chairman.*
JOHN E. BLAKEMORE,
JOHN G. BLAKE, M.D.

BOSTON, December, 1876.

REPORT

OF THE

SUPERINTENDENT OF PUBLIC SCHOOLS

FOR THE YEAR ENDING

JULY 31, 1876.

REPORT.

To the School Committee of Boston: —

In conformity with the requirements of your regulations, I respectfully submit the following as my Forty-second Report, the Thirtieth of the semi-annual series.

SUMMARY OF STATISTICS

For the School Year ending August 31, 1876.

I. POPULATION.

Population of the city, State Census, 1875 . .		341,919
Number of persons in the city between five and fifteen years of age, May 1, 1876 . . .		58,636
Decrease for the year . . .	1,619	

II. SCHOOLS.

Number of *districts* into which the elementary schools are grouped for supervision by principals	50
Number of *divisions* into which the districts are grouped for supervision by Committees of the Board	9
Normal School, for girls	1
Number of High Schools	8

Latin School, for boys.
English High School, for boys.
Girls' High School, for girls.
Roxbury High School, for boys and girls.
Dorchester High School, for boys and girls.
Charlestown High School, for boys and girls.
West Roxbury High School, for boys and girls.
Brighton High School, for boys and girls.

Number of Grammar Schools		50
For boys, 11 ; for girls, 11 ; for boys and girls, 28.		
Number of Primary Schools for boys and girls .		423
Increase for the year	9	
Number of schools for Licensed Minors . .		2
School for Deaf-Mutes		1
Kindergarten		1
Whole number of Day Schools		486
Increase for the year	9	
Number of Evening Schools		17
" " " Drawing Schools . . .		6
Whole number of Day and Evening Schools		509
Increase for the year	11	

III. SCHOOL–HOUSES.

Number of school-houses for High Schools . .	8
School-rooms, 66 ; class-rooms, 34 ; halls, 9 ; seats, 2,997.	
Number of school-houses for Grammar Schools .	50
School-rooms, 569 ; halls, 37 ; seats, 30,619.	
Number of school-houses for Primary Schools belonging to the city now occupied . .	86
School-rooms, 406 ; seats, about 22,495.	
Grammar School divisions in Primary School-houses	27
Grammar School divisions in hired buildings .	4
Primary Schools in Grammar School-houses . .	33

Primary Schools in Ward-rooms	3
Primary Schools in hired buildings . . .	19
Number of Ward-rooms in Grammar School-houses	1
Number of Ward-rooms in Primary School-houses	4

IV. TEACHERS.

Number of teachers in High Schools . . .		97
Male teachers, 53; female teachers, 44.		
Number of teachers in Grammar Schools . .		617
Male teachers, 97; female teachers, 520.		
Increase for the year	10	
Number of teachers in Primary Schools . .		423
Male teachers, 0; female teachers, 423.		
Increase for the year	9	
Number of teachers in the schools for Licensed Minors, females		2
Number of teachers in Deaf-Mute School, females		8
Number of teachers in Kindergarten, female . .		1
Number of teachers in Day Schools . . .		1,148
Male teachers, 150; female teachers, 998.		
Increase for the year	18	
Number of teachers in Evening Schools . .		142
Male teachers, 36; female teachers, 106.		
Decrease for the year	8	
Number of teachers in Evening Drawing Schools, males		16
Whole number of teachers		1,306
Male teachers, 202; female teachers, 1,104.		
Regular teachers, 1,256; special teachers, 50.		
Aggregate increase for the year . . .		10

V. PUPILS.

Number of different pupils enrolled, —	
Males	29,584
Females	25,833
Total	55,417
Ratio of the number of different pupils enrolled to the school population of the city . . .	.94
Average whole number of pupils belonging to day schools of all grades during the year . .	46,098
Ratio of the number of pupils belonging to the schools to population of the city . . .	.13
Ratio of the number of pupils belonging to the schools to school population	.78
Average daily attendance of pupils in all the day schools	42,797
Average daily absence of pupils in all the day schools	3,301
Average per cent. of attendance of all day schools	92.8
Average whole number of pupils belonging to the High Schools	2,173
Boys, 1,164; girls, 1,009.	
Average daily attendance at High Schools . .	2,062
Per cent. of attendance at High Schools . .	94.8
Average number of pupils to a regular teacher in High Schools	25.1
Average whole number of pupils belonging to Grammar Schools	24,329
Boys, 12,905; girls, 11,424.	
Average daily attendance at Grammar Schools .	22,867
Per cent. of attendance at Grammar Schools .	93.9
Average number of pupils to a regular teacher in Grammar Schools	46.8
Average whole number belonging to Primary Schools	19,439
Boys, 10,535; girls, 8,904.	
Average daily attendance at Primary Schools .	17,728

Per cent. of attendance at Primary Schools .	91.0
Average number of pupils to a regular teacher in Primary Schools	45.4
Average whole number belonging to the Schools for Licensed Minors	67
Average daily attendance at schools for Licensed Minors	60
Average whole number belonging to School for Deaf Mutes	65
Average whole number belonging to Kindergarten School	25
Average whole number belonging to Evening Schools	2,913
Average attendance at Evening Schools . .	1,598
Average whole number belonging to Evening Drawing Schools	412
Aggregate whole number belonging to Day and Evening Schools	49,423

VI. EXPENDITURES.

Salaries of Officers of School Committee and Truant Officers		$31,428 35
Salaries of Teachers, High Schools . . .		173,705 96
Grammar Schools . .		649,027 67
Primary Schools . . .		325,589 10
Licensed Minors' Schools .		1,600 00
Deaf-Mute School. . .		6,933 28
Evening Schools . . .		38,472 00
Kindergarten School . .		800 00
Special Instructors		39,247 23
Whole amount of salaries of teachers . . .		1,235,375 24
Incidental expenses		470,830 68
By Com. on Public Buildings	$356,039 62	
By School Committee . .	114,791 06	
Whole amount of incidental expenses, including salaries of officers		502,259 03

Whole amount of current expenses for all the day and evening schools and salaries of officers		$1,737,634 27
Expenditures for school-houses and lots		277,746 57
TOTAL EXPENDITURES FOR ALL SCHOOL PURPOSES		2,015,380 84

Cost per scholar based upon the average whole number belonging —

For tuition,	
All day schools	$25 94
For incidentals,	
All day schools	10 21
For both tuition and incidentals,	
All day schools	36 15
Whole amount appropriated by the City Council for salaries, and ordinary or current expenses of schools for the financial year *beginning* May 1, 1876	1,678,000 00

Distribution of the appropriation: —

Salaries of officers	$53,400 00	
Salaries of teachers	1,218,000 00	
Incidentals, — Committee on Public Buildings	178,000 00	
Incidentals, — School Committee	228,600 00	
Total amount of appropriations voted by the City Council for 1876–77		11,219,387 00
Amount assessed for State, County and City taxes for the financial year 1876–77		9,270,804 00
Ratio of the amount appropriated for the *current* expenses of the Public Schools, to the total amount of appropriations of the city for the year 1876–77		.14+
Ratio of the amount appropriated for the *current* expenses of the Public Schools, to the whole amount to be raised by taxation for the year 1876–77		.18+
Valuation of the city, May, 1876		748,878,100 00
Per cent. of valuation of 1876, appropriated for Public Schools		.002–21

It appears that the *total expenditures for all* school purposes during the last year was $2,015,380.84, against $2,081,043.35 for the preceding year, showing a decrease of $65,662.51, owing to a diminution of outlay for school accommodations. The whole amount of the *current* expenses for the last year was $1,737,634.27, against $1,724,373.61 for the preceding year, showing an increase of $13,260.66. The increase in the amount of the salaries was $18,366.32; and the decrease in the item of incidentals, which includes all the current expenses except salaries, was $5,105.66. It is gratifying to see a turn of tide in the item of incidentals, which has increased during the past ten or fifteen years in a ratio considerably greater than that of the increase of the salaries.

The cost per scholar in the day schools for tuition and incidentals the past year was $36.15, against $36.85 for the preceding year, — a decrease of $0.70.

The ratio of the amount appropriated for the *current* expenses of the public schools to the total amount of appropriations of the city for the year 1876–77 was .14+, the same as that for 1875–76.

HIERARCHY OF SCHOOLS.

Our system comprises four grades of day schools, — the Primary, Grammar, High and Normal.

1. The Primary Schools are in separate buildings, containing from one to twelve school-rooms, six rooms being the standard number. Pupils are admitted at five years of age, and the course of instruction is designed for three years, with six half-yearly

steps. For pupils who are above the proper age of Primary pupils, and yet are not qualified for the Grammar grade, there are schools called "Intermediate," although they are of the Primary grade of instruction; their twofold object being to relieve the Primary classes from pupils of an unsuitable age, and to shorten the term of the preparation of these backward pupils for the Grammar Schools.

2. The Grammar Schools are next above the Primary, practically receiving their pupils from the latter at eight or nine years of age, although there is no age qualification requisite for this grade of schools. The course of instruction comprises six steps, each requiring about one year. The Primary and Grammar School courses together constitute the complete elementary course of instruction designed for all pupils. No pupils are expected to end their schooling with the Primary course, and those who do stop there are exceptional cases.

3. The High Schools constitute the third grade of the system. They are devoted to the secondary instruction, or the first stages of a liberal education. Grammar-School graduates and pupils of equivalent attainments are entitled to admission, with some limitations as to the minimum age. But our High Schools are fortunately of different types, mixed and unmixed, classical and real. The Latin School receives pupils at nine years of age, with qualifications about equivalent to the requirements of the first year's Grammar-School course. Its full course comprises eight classes and eight years. Hereafter the other seven High Schools are to have a uniform

course of three years. For the graduates a post-graduate course of one year is provided, — for the girls in the Girls' High School, and for the boys in the English High School.

4. The Normal School, for the professional instruction and training of teachers, is now distinctly graded above the High Schools, and the qualification for admission is the completion of the High-School course, or its equivalent.

5. Besides the foregoing grades, the system comprises an Evening High School, and Evening Elementary Schools, schools for Licensed Minors (newsboys and bootblacks), a school for Deaf Mutes, a Kindergarten, and Evening Industrial Drawing Schools.

NORMAL SCHOOL.

The number of regular teachers in this school the last year was three, and the average number of pupils was sixty-nine. Sixty-one received diplomas of graduation at the close of the school year.

Twenty-four years ago, a Normal School for qualifying female teachers for the public schools of the city was established by the School Board on a rational basis, in accordance with the advice of my predecessor. Very soon the original plan, purpose, and organization of the school were radically changed, and it is hardly an exaggeration to say that during almost the whole period that has elapsed since the establishment of the school the arrangements and provisions for giving the requisite normal training to female teachers for our public schools have been insufficient

and unsatisfactory. But at length, after experiments and delays, extending over a period of nearly a quarter of a century, we are able to say that we have a well-organized and efficient Normal School, established on a broad and firm foundation. It is in charge of an able and experienced corps of instructors. The standard of qualifications for admission is high, and it was, perhaps, the first Normal School in the country to require of its candidates as a preparation for entrance the completion of a High-School course of instruction. Its course of training is but one year, but it is exclusively professional. The four great pedagogical branches — psychology, physiology, ethics and logic — are here judiciously handled. The methods of teaching the common-school branches are taught both theoretically and practically. A large Grammar School for boys, and a large Primary School with pupils of both sexes, afford ample opportunity for the training of the pupil teachers in the actual work of the school-room. There is, besides, especial encouragement for the best graduates of our High Schools to take the year's course in this school, not only in the excellent instruction to be obtained, but in the advantages it will afford in securing an early appointment, and in the increased salary at the beginning of service which it guarantees.

All good institutions have more or less evils and difficulties to contend with, and this is not an exception in this respect. The peculiar difficulty which a school like this has to contend with is that of discriminating between those of its pupils who have talent for teaching and those who have not, and of

convincing the latter that it is their duty to engage in some other occupation. If the head-master finds in the course of the year that there are some pupils who give little promise of success, he may, perhaps, privately advise them to withdraw from the school. But such advice is usually most unwelcome, and is rarely accepted as wise and impartial. Still it seems desirable that such advice should be given in some cases.

The occupancy by the Normal School of the new quarters assigned it, in the Rice School-house, affords an opportunity for putting in operation a new and promising instrumentality for increasing the efficiency of our teaching corps, which has for some time been in contemplation. I mean the institution of special courses of training in methods of teaching particular branches for teachers of different grades already in the service. Of course this instruction must be given on the afternoons of Wednesday and Saturday. Already the work on this new line has been begun. Arrangements have been made for a course of ten lessons, by Mr. L. W. Mason, on the method of teaching music in Primary Schools, the pupils of the Normal School and the teachers in the Primary Schools being admitted; courses on the methods of teaching music in Grammar Schools, by Messrs. Holt, Sharland and Eichberg. Arrangements have also been made for courses in the different departments of drawing, namely, geometrical drawing, perspective, and free-hand, model drawing and design. It is hoped that additional provisions will be made for courses in penmanship, reading, and indeed ultimately in all the

other branches taught in our elementary schools. It is obvious that this instrumentality has very large capabilities.

The following table shows the number and average age of pupils who joined the Boston Normal School, from each High School, and from other sources, and entered upon the course of study in the fall of 1876: —

Schools.	No. Joined.	Average Age.
Girls' High School	54	19.0
Roxbury "	12	18.8
Dorchester "	5	19.1
Charlestown "	5	18.8
West Roxbury High School	3	18.1
Brighton "	1	17.7
Other sources	7	19.11
Totals	87	18.10

Of those who joined the school, there were, —

Between seventeen and eighteen	20
Between eighteen and nineteen	31
Between nineteen and twenty	22
Between twenty and twenty-one	10
Over twenty-one	4
	87

HIGH SCHOOLS.

The petition of citizens of East Boston, in 1874, for the establishment of a High School in that section of the city, raised the question as to the future policy of the city in respect to the maintenance of this grade of public schools. Nobody openly questioned the necessity or expediency of providing High-School instruction as a part of the system of public instruction. It is too late to raise that question in this community. But the substance of the question to be decided was this: Shall all the instruction in this grade of schools be limited to two or three central schools, of different descriptions, or shall provision be continued for district or local High-School instruction? And if local provision is continued, shall it be in branch schools, or in independently organized schools? The responsibility of settling this important question fell upon the present Board, and, in my judgment, it has been wisely disposed of by deciding to continue the local schools with some limitations as to the length of the courses of study. The existing local schools which came to our system by annexation could not be discontinued without violating implied pledges to the annexed districts where they are situated. Nor could they be reduced to the condition of mere branches without impairing their efficiency. But there could be no very strong objection to the plan which was adopted as a provisional arrangement, in the interest of economy, of providing for the instruction of all such pupils as desire to pursue their studies beyond a three years' course, to do so in the central

schools, where the advantages will be much greater in proportion to their cost.

The new programmes cannot of course be regarded as a finality; for, in the matter of High-School programmes, we have by no means reached perfection. But the changes made have been for the most part in the right direction.

The adoption of the regulation which cut down the number of male teachers in the mixed High Schools was, I cannot but think, a retrograde step. I do not allow that anybody goes before me in just appreciation of the capabilities of women as teachers in High Schools. And yet, in my judgment, it is not best that the instruction in our High Schools, which are composed of pupils of both sexes, should be exclusively in the hands of women, with the exception of the teaching done by the principals. Boys who have been mainly taught by women in the elementary course need all the more in the higher course the influence of the training which comes from the masculine mind.

The number of pupils admitted to the High Schools, September, 1876, was 897 — 515 boys and 382 girls — against 926 — 551 boys and 375 girls — for the preceding year, the decrease being twenty-nine.

The number of diplomas of graduation awarded at the exhibition in July was 407 against 455 for the preceding year.

The following table shows the number of regular teachers, the average number of pupils, and the average number of pupils to a regular teacher, in each of the High Schools, during the half-year ending July 31, 1876: —

Schools.	No. of Reg. Teachers.	Average No. of pupils.	Av'ge No of pupils to a Regular Teacher.
Latin	13	355	27.3
English High	18	483	26.8
Girls' High	22	569	25.9
Roxbury High	8	173	21.6
Dorchester High	5	133	26.6
Charlestown High	8	199	24.9
West Roxbury High	4	75	18.8
Brighton High	3	50	16.7
Totals	81	2,037	25.1

The following table shows the number of scholars who received the diplomas of graduation, at the close of the school-year, in each of the High Schools: —

Schools.		Boys.	Girls.	Total.
Latin		19	....	19
English High		95	....	95
Girls' High	Regular Course	....	126	126
	Regular and Extra	....	40	40
Roxbury High		18	23	41
Dorchester High		14	23	37
Charlestown High		14	20	34
West Roxbury High		4	5	9
Brighton High		3	3	6
Totals		167	240	407

LATIN SCHOOL.

The following table shows the number and average age of boys admitted to the Latin School from each Grammar School, and also the number admitted from other sources, September, 1876 : —

Schools.	No. Admitted.	Average Age.	Schools.	No. Admitted.	Average Age.
Adams	1	15.3+	Lewis	2	17.2—
Bennett	1	9.7—	Lincoln	3	13.3+
Bigelow	3	13-3+	Mayhew	2	14.9+
Brimmer	8	13.3—	Mt. Vernon	1	13.2—
Bunker Hill	3	15.7—	Phillips	10	13.6+
Central	3	12.7—	Prescott, Ch.	3	15.
Chapman	3	15.7—	Quincy	3	14.6—
Dearborn	1	13.—	Rice	12	13.6+
Dudley	1	14.5—	Sherwin	1	14.8+
Dwight	9	13.3—	Warren	6	15.3
Eliot	1	13.+	Winthrop	2	13.6—
Everett, Dor	2	14.4	Other sources	45	14.9
Florence	1	14.1—			
Harris	3	14.1	Totals	138	13.99+
Lawrence	8	13.3			

Of those who were admitted, there were, —

Between nine and ten	4
Between ten and eleven	7
Between eleven and twelve	10
Between twelve and thirteen	21
Between thirteen and fourteen	15
Between fourteen and fifteen	29
Between fifteen and sixteen	19
Between sixteen and seventeen	15
Over seventeen	18
	138

ENGLISH HIGH SCHOOL.

The following table shows the number and average age of the pupils admitted into the English High School, from Grammar Schools and from other sources, and joined the school at the beginning of the school year, September, 1876: —

Schools.	No. joined.	Average Age.	Schools.	No. joined.	Average Age.
Adams	18	15.3—	Lincoln	10	15.5
Andrew	7	14.3+	Lyman	7	14.7+
Bigelow	11	14.8+	Mayhew	10	15.2+
Brimmer	16	14.5	Minot	1	16.+
Bunker Hill	4	15.2—	Phillips	15	15.2+
Central	1	16.3+	Prescott	8	14.9+
Chapman	12	15.3+	Prescott, Ch.	4	15.5+
Comins	1	14.5	Quincy	11	14.5—
Dearborn	5	15.8+	Rice	31	15.3—
Dwight	20	15.5	Sherwin	2	14.2+
Eliot	14	14.+	Warren	1	16.8+
Gibson	4	14.8—	Winthrop, Ch.	5	14.9
Harvard	2	14.8+	Other sources	7	16.2—
Lawrence	13	14.7+	Totals	247	15.
Lewis	7	16.+			

Of those who were admitted, there were, —

Under twelve years	2
Between twelve and thirteen years	2
Between thirteen and fourteen	36
Between fourteen and fifteen	80
Between fifteen and sixteen	79
Between sixteen and seventeen	38
Between seventeen and eighteen	10
	247

GIRLS' HIGH SCHOOL.

The following table shows the number and average age of pupils who joined the Girls' High School, from each Grammar School, and from other sources, and entered upon the course of study in the fall of 1876:—

Schools.	No. joined.	Average Age.	Schools.	No. joined.	Average Age.
Adams	4	15.10	Hillside	2	15.37
Bowditch	7	15.43	Lewis	12	16.05
Bowdoin	7	15.94	Lowell	3	15.30
Chapman	7	15.82	Lyman	2	16.42
Comins	4	15.56	Minot	3	15.03
Dearborn	5	15.78	Norcross	16	14.98
Dudley	4	15.10	Prescott	4	15.91
Everett	29	15.58	Sherwin	6	16.01
Everett, Dor.	3	14.97	Shurtleff	17	15.40
Florence	1	14.83	Wells	12	16.08
Frances st.	3	14.81	Winthrop	23	15.31
Franklin	30	16.44	Winthrop, Ch.	1	15.42
Gaston	16	15.64	Other sources	39	17.58
Gibson	2	16.41			
Hancock	5	14.76	Totals	277	15.93

Of those who joined, there were,—

Between thirteen and fourteen	8
Between fourteen and fifteen	54
Between fifteen and sixteen	87
Between sixteen and seventeen	70
Between seventeen and eighteen	42
Between eighteen and nineteen	10
Over nineteen	6
	277

ROXBURY HIGH SCHOOL.

The following table shows the number and average age of the pupils admitted to the Roxbury High School, from Grammar Schools, and from other sources, and also the number of those who joined the school and entered upon the course of study, in the fall of 1876: —

Schools.	Admitted.		Joined.		Average Age.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Comins	4	2	4	2	15.1	15
Dearborn	4	7	4	7	16	16.7
Dudley (*Boys*)	10	0	10	0	15.8	—
Dudley (*Girls*)	0	9	0	9	—	15.6
Lowell	4	3	4	3	15.5	15.5
Lewis	8	2	8	2	16	16.08
Rice	2	0	2	0	15.3	—
Sherwin	3	2	3	2	17.2	15.11
Others sources	3	4	3	4	15.4	17.7
Totals	38	29	38	29	15.9	16.1

Of those who joined the school, there were, —

Between thirteen and fourteen years	3
Between fourteen and fifteen	13
Between fifteen and sixteen	21
Between sixteen and seventeen	17
Between seventeen and eighteen	11
Between eighteen and nineteen	2
	67

DORCHESTER HIGH SCHOOL.

The following table shows the number and average age of the pupils admitted to the Dorchester High School, from Grammar Schools and other sources, who joined the school and entered upon the course of study in the fall of 1876:—

Schools.	Admitted.		Average Age.	
	Boys.	Girls.	Years.	Months.
Mather	1	..	13	9
Harris	4	7	15	5
Everett	9	..	15	3
Stoughton	3	5	14	9
Gibson	1	1	14	7
Minot	5	1	15	4
Tileston	4	..	16	1
English High	1	..	15	9
Girls High	2	..	18	5
Other sources	2	..	18	4
Totals	32	14	15	7

Of those admitted, there were,—

Between thirteen and fourteen	6
Between fourteen and fifteen	13
Between fifteen and sixteen	12
Between sixteen and seventeen	12
Between seventeen and eighteen	1
Between eighteen and nineteen	2
Over twenty	1
	46

CHARLESTOWN HIGH SCHOOL.

The following table shows the number and average age of the pupils admitted to the Charlestown High School from Grammar Schools, and from other sources, and also the number of those who joined the school and entered upon the course of study in the fall of 1876: —

Schools.	Admitted.		Joined.		Average Age.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
					Y. M.	Y. M.
Bunker Hill	..	..	7	3	15.7½	14.10.6
Harvard	..	..	6	4	15.4½	15.–½
Prescott, Ch.	..	..	11	7	14.10.9	14.9.7
Warren	..	..	8	12	15.6	15.–½
Winthrop, Ch.	..	..	2	6	15.–½	15.2.1
Other sources	..	..	1	1	15.3	14.5
Totals	..	..	35	33	14.11	14.9

Of those who joined, there were, —

Between twelve and thirteen years	2
Between thirteen and fourteen	2
Between fourteen and fifteen	36
Between fifteen and sixteen	23
Between sixteen and seventeen	15
	78

WEST ROXBURY HIGH SCHOOL.

The following table shows the number and average age of the pupils who joined the West Roxbury High School from each Grammar School, and from other sources, and entered upon the course of study in the fall of 1876: —

Schools.	No. joined.		Average Age.	
	Boys.	Girls.	Boys.	Girls.
Central	8	....	15.2	....
Hillside	....	6	....	16.
Florence	2	6	15.2	15.10
Mt. Vernon	5	1	14.6	15.2
Other sources	....	5	....	16.2
Totals	15	18	14.11¾	15.9½

Of those who joined, there were, —

Between twelve and thirteen	3
Between thirteen and fourteen	8
Between fourteen and fifteen	12
Between fifteen and sixteen	9
Between sixteen and seventeen	1
	33

BRIGHTON HIGH SCHOOL.

The following table shows the number and average age of pupils who joined the Brighton High School from the Grammar Schools and other sources, and entered upon the course of study in the fall of 1876: —

Schools.	No. joined.		Average Age.	
	Boys.	Girls.	Boys.	Girls.
			Y. M.	Y. M.
Bennett	8	6	15.1	15
Harvard	0	3	–	15.2
Other sources	2	2	17.1	15.1
Totals	10	11	16.1	15.1

Of those who joined the school, there were, —

Between thirteen and fourteen years	2
Between fourteen and fifteen years	7
Between fifteen and sixteen years	7
Between sixteen and seventeen years	5
Between seventeen and eighteen years	1
	22

GRAMMAR SCHOOLS.

The attendance at these schools during the last half year, as compared with that of the corresponding six months of the preceding year, was as follows: —

The average whole number of pupils belonging was 24,788 — boys, 13,178, and girls 11,610 — against 24,413, the increase being 375; the daily average attendance, 23,178 against 22,850; and the per cent. of attendance, 93.9 against 93.5. The whole number of regular teachers in this department at the end of the last school year was 580: males, 87; females, 493. In addition to these there were 26 teachers of sewing; and there were 7 teachers of drawing, and 7 teachers of music, who divide their time between the different grades of schools.

The whole number of pupils on the register at the close of the school year was 23,300. These pupils were classified as follows: —

Classes.	No. July 31, 1876.	Per Cent. 1874.	Per Cent. 1876.
First class (highest)	1,435	.07	.06
Second class	2,247	.10	.10
Third class	3,337	.14	.14
Fourth class	4,139	.18	.17
Fifth class	5,483	.23	.24
Sixth class	6,659	.28	.29

Ages.	No. July 31, 1876.	Per Cent. 1874.	Per Cent. 1876.
Under eight years	78	.006	.00.3
eight years	902	.05	.04
nine years	2,585	.11	.11
ten years	3,704	.15	.16

Ages.	No. July 31, 1876.	Per Cent. 1874.	Per Cent. 1876.
Under eleven years . . .	3,976	.17	.17
twelve years . . .	3,969	.17	.17
thirteen years . . .	3,708	.15	.16
fourteen years . . .	2,760	.11	.11
fifteen years and over . .	2,261	.08	.09

It appears that the percentages for 1876 do not make so good a showing as those of 1874. In the first place, in the table of classification there is a falling off in the percentage in the highest class, while there is an increase in the percentage of the lowest class. This is not owing to the fact that the pupils left school at an earlier age, as appears from an inspection of the table of ages; for the percentage of pupils fifteen years and over in 1876 is even greater than it was in 1874. The conclusion is, therefore, that there has not been quite so much success in advancing pupils from the lower to the upper classes. Then the table of ages shows that the pupils have not been advanced from the Primary to the Grammar Schools at as early an age as was shown in 1874. So that there are in the Grammar Schools fewer pupils of the lower ages and more of the higher. Perhaps it is not well to put many pupils into the Grammar grade before they are eight years of age; but it is desirable that the greater number should enter before they are nine years of age.

The average number of pupils to a teacher was was 46.8 against 46.7 for the preceding year. In the number of diplomas of graduation the falling off was 229.

The following table shows *the average number of pupils to a teacher* (not counting the master's head assistant), in each Grammar School, for the half-year ending July 31, 1876: —

Schools.	No. of Teachers.	Average No. of Pupils.	No. of Pupils to a Teacher.	Schools.	No. of Teachers.	Average No. of Pupils.	No. of Pupils to a Teacher
Adams.....	10	515	51.5	Hillside	6	229	32.7
Andrew.....	10	389	38.9	Lawrence ..	18	962	53.4
Bennett	6	268	44.0	Lewis.....	12	565	47.1
Bigelow.....	15	746	49.7	Lincoln	11	558	50.7
Bowditch....	9	355	39.4	Lowell.....	7	424	60.6
Bowdoin.....	9	443	49.2	Lyman	12	618	51.5
Brimmer....	13	623	47.9	Mather	7	306	38.3
Bunker Hill.	13	596	45.8	Mayhew....	10	407	40.7
Central	6	320	45.7	Minot	5	230	38.3
Chapman....	11	551	49.2	Mt. Vernon	4	128	25.8
Comins.....	16	770	48.1	Norcross....	14	637	45.5
Dearborn....	18	865	48.1	Phillips	12	490	40.8
Dudley (*Boys*)	9	428	47.6	Prescott....	12	625	52.1
Dudley (*Girls*)	6	307	51.2	Prescott, Ch.	10	464	46.4
Dwight.....	12	585	48.8	Quincy.....	13	653	50.2
Eliot.....	15	691	46.0	Rice	14	632	45.1
Everett	14	685	48.9	Sherwin....	18	854	47.4
Everett, Dor.	7	327	40.9	Shurtleff....	13	719	55.3
Florence....	3	125	31.3	Stoughton..	6	207	29.6
Franklin....	14	689	49.2	Tileston....	2	66	22.0
Gaston	9	413	45.9	Warren	13	649	49.9
Gibson	5	216	36.0	Wells.....	9	405	45.0
Hancock....	13	565	43.5	Winthrop...	18	880	48.9
Harris	5	215	35.8	Wint'p, Ch.	11	534	48.6
Harvard, Ch.	13	575	44.2				
Harvard, Br.	12	284	23.7	Totals.....	530	24,788	46.8

The following table shows the number of scholars who received the *diploma of graduation*, at the close of the schools for the year, in July, 1876, in each Grammar School: —

Schools.	Boys.	Girls.	Total.	Schools.	Boys.	Girls.	Total.
Adams	19	9	28	Hillside	..	12	12
Andrew	11	..	11	Lawrence.....	27	..	27
Bennet	7	5	12	Lewis	19	19	38
Bigelow	24	..	24	Lincoln	24	..	24
Bowditch	..	13	13	Lowell	7	13	20
Bowdoin	..	27	27	Lyman	9	11	20
Brimmer	30	..	30	Mather	3	1	4
Bunker Hill ...	15	6	21	Mayhew	14	..	14
Central	12	..	12	Minot	6	5	11
Chapman	18	18	36	Mt. Vernon...	7	1	8
Comins	6	15	21	Norcross	..	26	26
Dearborn	10	10	20	Phillips	15	..	15
Dudley (*Boys*)	12	..	12	Prescott	20	9	29
Dudley (*Girls*)	..	18	18	Prescott, Ch...	10	9	19
Dwight	39	..	39	Quincy	20	..	20
Eliot.....	20	..	20	Rice	37	..	37
Everett	..	43	43	Sherwin.....	14	12	26
Everett, Dor ..	9	7	16	Shurtleff	..	29	29
Florence	4	7	11	Stoughton	3	7	10
Franklin	..	39	39	Tileston	2	..	2
Gaston.....	..	28	38	Warren	13	17	30
Gibson.....	8	4	12	Wells	..	20	20
Hancock	..	5	5	Winthrop.....	..	31	31
Harris	7	6	13	Winthrop, Ch.	9	9	18
Harvard, Ch...	9	3	12				
Harvard, Br...		3	3	Totals	519	497	1,016

PRIMARY SCHOOLS.

The attendance at these schools during the last half-year, as compared with that of the corresponding six months of the preceding year, was as follows: —

The average whole number of pupils belonging was 19,221 — boys, 10,613, and girls, 9,043 — against 18,184, the increase being 1,037; the daily average attendance, 17,960 against 16,419, and the per cent. of attendance being 91.2 against 90.3. The whole number of regular teachers in this grade at the end of the last school year was 423 against 414. The average number of pupils to a teacher was 45.2 against 43.9; the average number of pupils to a Primary School promoted to the Grammar Schools was 6.8 against 6.6. On inspecting the columns of figures given below, showing the number of pupils sent up to the Grammar Schools by each district, a great disparity is seen, — a greater disparity, indeed, than seems justified by difference of circumstances in respect to the character of the school popular education. But the true merit of a district in this respect is not to be determined by the results of a single year; a comparison of the results of several years would, however, be quite conclusive.

The classes at the end of the year were as follows: —

Classes.	No. July 31, 1876.	Per Cent. 1876.	Per Cent. 1874.
First Class	2,896	.14	.16
Second Class	3,180	.16	.15
Third Class	2,856	.14	.15
Fourth Class . .	3,017	.15	.15
Fifth Class	3,136	.16	.17
Sixth Class	5,050	.25	.22

The ages of the pupils at the end of the school year were as follows: —

Ages.	No. July 31, 1876.	Per Cent. 1876.	Per Cent. 1874.
Five years of age . . .	2,728	.14	.16
Six years of age	4,237	.21	.23
Seven years of age . . .	4,913	.24	.24
Eight years of age . . .	4,256	.21	.19
Nine years of age and over . .	4,001	.20	.18

In the foregoing comparative exhibit of classification and ages, it appears that the drift since 1874 has been, as it was in the case of the Grammar Schools, in the wrong direction. In the highest class, the relative number is less, while in the lower it is greater, and the relative number of pupils of the lower ages has diminished, while the relative number of those of the higher ages has increased. If it is desirable that pupils should be admitted to the Grammar Schools before they are nine years of age, it is also desirable that they should get through the Primary Schools before that age. Yet it appears that *twenty per cent.* of the pupils in the Primary Schools at the close of the year were nine years of age and over. An inspection of the detailed statistics of the classification will reveal a very marked difference between districts *in respect to the relative number of pupils in the highest and lowest classes.* In cases where the age, physical development, and proficiency of individual pupils warrant such a course, they should be promoted without waiting for the time of regular promotion by classes. In this way the upper classes may be increased.

The following table shows the number of Primary pupils in each district, and the *average number of pupils to a school or teacher, during the half-year* ending July 31, 1876: —

Districts.	No. of Schools.	Av. whole No. of Pupils.	No. of Pupils to a School.	Districts.	No. of Schools.	Av. whole No. of Pupils.	No. of Pupils to a School.
Adams	8	339	42.4	Hillside.....	4	168	42.0
Andrew.....	8	385	48.1	Lawrence . .	21	1013	48.2
Bennett	4	213	53.3	Lewis	11	477	43.4
Bigelow	13	570	43.8	Lincoln.....	7	344	49.1
Bowditch...	13	577	44.4	Lowell	9	401	44.5
Bowdoin ...	10	427	42.7	Lyman	8	374	46.8
Brimmer ...	9	403	44.8	Mather	4	193	48.3
Bunker Hill.	11	517	47.0	Mayhew	7	267	38.1
Central	5	211	42.2	Minot	3	145	48.4
Chapman ...	12	520	43.3	Mt. Vernon	3	110	36.7
Comins.....	17	850	50.0	Norcross....	7	332	47.4
Dearborn ..	18	871	48.3	Phillips.....	8	270	33.8
Dudley (*Boys*)	9	392	43.6	Prescott	10	489	48.0
Dwight.....	6	262	43.7	Prescott, Ch.	5	245	49.0
Eliot.....	16	682	42.6	Quincy	7	333	47.6
Everett.....	11	551	50.1	Rice.....	15	682	45.4
Everett, Dor.	4	182	45.5	Sherwin	15	742	49.5
Florence....	4	180	45.0	Shurtleff....	6	298	49.7
Franklin ...	6	253	42.2	Stoughton ..	3	112	37.3
Gaston.	8	376	47.0	Tileston	1	34	34.0
Gibson	4	172	43.0	Warren.....	7	365	52.1
Hancock....	17	738	43.4	Wells	12	515	42.9
Harris	3	125	41.7	Winthrop ...	7	267	38.1
Harvard, Ch.	14	631	45.1	Winthrop, Ch	8	400	50.0
Harvard, Br.	5	218	43.6	Totals	423	19,221	45.4

The following table shows the number of Primary pupils in each district promoted to the Grammar Schools [July, 1876], and the average number of promotions to each school in the respective districts: —

Districts.	No. of Schools.	Sent to Gr. School.	No. to a School.	Districts.	No. of Schools.	Sent to Gr. School.	No. to a School.
Adams	8	60	7.5	Hillside	4	24	6.0
Andrew	8	100	12.5	Lawrence	21	159	7.6
Bennett	4	41	10.3	Lewis	11	78	7.1
Bigelow	13	77	5.9	Lincoln	7	61	8.7
Bowditch	13	103	7.9	Lowell	9	59	6.6
Bowdoin	10	64	6.4	Lyman	8	50	6.3
Brimmer	9	61	6.8	Mather	4	45	11.3
Bunker Hill	11	77	7.0	Mayhew	7	47	6.7
Central	5	34	6.8	Minot	3	19	6.3
Chapman	12	75	6.3	Mt. Vernon	3	32	10.7
Comins	17	117	6.8	Norcross	7	45	6.4
Dearborn	18	106	5.9	Phillips	8	43	4.8
Dudley (*Boys*)	9	47	5.2	Prescott	10	64	6.4
Dwight	6	45	7.5	Prescott, Ch.	5	24	4 8
Eliot	16	93	5.8	Quincy	7	41	5.9
Everett	11	88	8.0	Rice	15	114	7.6
Everett, Dor.	4	37	9.3	Sherwin	15	96	6.4
Florence	4	38	9.5	Shurtleff	6	34	5.7
Franklin	6	34	5.7	Stoughton	3	42	14.0
Gaston	8	47	5.9	Tileston	1	16	16.0
Gibson	4	24	6.0	Warren	7	65	9.3
Hancock	17	82	4.2	Wells	12	68	5.7
Harris	3	24	8.0	Winthrop	7	38	5.4
Harvard, Ch.	14	87	6.2	Winthrop, Ch.	8	42	5.3
Harvard, Br.	5	41	8.2	Totals	423	2,908	6.8

EVENING SCHOOLS.

These schools are undoubtedly doing a needed and excellent work. The number of pupils in them does not increase much, and the more thoroughly our day schools do their work, the more successful they are in securing the attendance of all children of the school age, the less need will there be of Elementary Evening Schools. It is believed that the Elementary Evening Schools are better managed than they were in the earlier period of their existence; but they have not yet reached that degree of excellence which is to be desired. They ought to have good accommodations, a good classification, experienced teachers, and especially capable principals. The rule excluding the day-school teachers from this service should, in my judgment, be abolished.

The Evening High School is an undoubted success. It evidently is calculated to meet an educational want in this community. It has been, from its establishment, well managed. The location is bad, and should be changed.

The Mayhew Grammar School-house, which was vacacated by the consolidation of schools, might perhaps be used to advantage for evening-school purposes. An Evening High School in that locality would accommodate the northern portion of the city much better than it is now accommodated.

EVENING HIGH SCHOOL. — The following table shows the statistics of the Evening High School for the past year : —

1875-76.	No. of Sessions.	Average No. Belonging.	Average Attendance.			Average No. of Teachers.	Average No. of Pupils to a Teachers.
			Males.	Females.	Total.		
October, 1875	22	1,250	323	128	451	12	41
November, 1875	18	1,000	246	128	374	12	38
December, 1875	22	850	171	111	282	11	28
January, 1876	21	900	232	116	348	10	35
February, 1876	20	650	175	87	262	9	29
March, 1876	22	600	139	69	208	8	28
Totals	125	5,250	1,286	639	1,925	62	199
Averages	21	875	214	107	321	10	33

Whole number registered during the term was 1,999. It will be seen in the above table that the minimum number of pupils to a teacher did not fall below 28, while the maximum reached 41. The management of this school, so as to keep the classes of a fair size, has prevented the cost of carrying it on from exceeding reasonable limits.

Elementary Evening Schools. — The following table contains the summary of the statistical reports of the several Elementary Evening Schools which were in operation from Oct., 1875, to March 1, 1876: —

Schools.	No. of Sessions.	Whole No. Registered.	Average No. Belonging.	Average Attendance.			Average No. of Teach's including Principal.	Av. No. Pupils to a Teacher excludi'g Princip'l.
				Males.	Females.	Total.		
Anderson street	118	291	138	59	28	87	9	11
Blossom street	116	476	272	61	31	92	8	13
Broadway, South Boston	116	660	75	61	–	61	7	8
Cabot street	128	312	139	77	21	98	14	11
Dorchester	126	222	131	62	9	71	7	12
Eustis street	122	250	69	33	11	44	6	12
Harrison avenue	125	591	218	114	35	149	13	13
Jamaica Plain	127	75	59	22	5	27	4	7
Lincoln School, South Boston	123	339	114	84	6	91	8	12
Neponset	123	103	60	28	14	42	5	11
North Bennet street	130	500	201	101	46	147	12	12
Old Franklin	130	271	187	101	59	160	13	13
Prescott School, Charlestown	126	239	59	33	–	33	4	10
Reed's Hall, East Boston	128	250	147	73	14	87	9	11
Warrenton street Chapel	75	320	97	28	33	61	5	11
Warren School, Charlestown	129	123	72	–	27	27	4	10
Totals	1,932	5,022	2,038	938	339	1,277	128	11

Evening Drawing Schools. — Six of these schools, containing an average of four hundred and twelve pupils, were taught last year by sixteen teachers.

The cost of carrying on these schools was as follows: —

Salaries of instructors	$9,697 00
Drawing materials, models, etc.	2,094 34
Furniture, janitor, heating, etc.	1,363 46
Total expense -	$13,154 80

These schools are well organized and they are imparting excellent instruction in the different branches of industrial drawing.

DEAF-MUTE SCHOOL.

Eight teachers are employed in this school, and the average number of pupils belonging during the last year was sixty-five. The salaries of the instructors last year amounted to $6,933.28. A considerable portion of the expense of carrying on this school comes from the State in payment of the tuition of pupils, the rate for residents being $100, and for non-residents $150.

This school is well managed and well taught on the articulation plan, as improved by the application of Prof. Bell's system of "Visible Speech."

SCHOOLS FOR LICENSED MINORS.

There are two schools of this description for newsboys and bootblacks, each taught by one female teacher. The average whole number belonging the

last year was sixty-seven. The salaries of the teachers amounted to $1,600. Both morning and afternoon sessions are two hours in length. The newsboys attend one session, and the bootblacks the other. These schools have done much to improve the class of pupils for which they are intended.

KINDERGARTEN.

The only Kindergarten we have is taught by one teacher, and the average number of pupils belonging the last year was twenty-five. Ever since its establishment in 1870 it has been constantly improving. The pupils in this Kindergarten are from three to seven years of age. It is not a school in the ordinary sense of the word school. It is intended as a preparation for school instruction. This Kindergarten is believed to be a model institution. The children attending it are mostly from well-to-do families. Kindergartens in the less-favored sections of the city would be of great service to parents who are too much occupied with their daily labor to give their children the care they need. We have vacant school-rooms which might be used for this purpose. The City Council has not as yet been willing to make provision for Kindergartens, from the apprehension that if generally established throughout the city the expense would be very considerable, as it has been supposed that a Kindergarten teacher can care for only about twenty-five pupils. My own opinion is that this number might be increased, and thus the objection as to expense would be to a certain extent met.

THE CO-ORDINATION OF GRADES.

The smooth and harmonious working of a great and complicated system requires that all its parts should be properly adapted to each other. In this respect our system has had, and still has, some defects. Where there are grades of schools, one distinctly and wholly above another, what is more obvious than that the maximum of the requirements of the programme of the lower should be the recognized standard of qualification for admission to the higher? And yet this has never been the case in our system. The qualification for admission to the Grammar Schools has been different from, and lower than, the requirement of the programme of the highest class of the Primary Schools, and the examination for admission to the High Schools has always excluded an important part of the curriculum of the highest class of the Grammar Schools. This defect in co-ordination, which has operated as a premium for the neglect of important requirements in the lower schools, has often in past years been brought to the notice of the Board. In the new regulations, this defect is only partially remedied. The requirement for admission to the Grammar Schools is still far from coinciding, as it should do, with the standard of attainments prescribed for the highest class of the Primary Schools. It is now provided that candidates for the High Schools, except the Latin, shall be graduates of the Grammar Schools, or shall pass an examination substantially the same as that of the graduate class of the Grammar Schools. But there is no provision

fixing the standard of scholarship for a diploma of graduation, except that the candidates must be "pupils of the graduating class," and pass "a satisfactory diploma examination." It is left to the action of the Board of Supervisors, subject to the approval of the Committee on Examinations, to determine the character of the examination. The standard adopted in the first diploma examination under this provision, which was made last June, was very nearly the same as that of past years for admission to the High Schools, without being intended to conform to the requirements of the Grammar School programme. Under the circumstances this was doubtless the only proper course to pursue, as the masters of the Grammar School had gone through the year's work without being notified that there would be any change in the requirements for admission to the High Schools. But the consequence was that the schools where the programme was most faithfully carried out did not get credit for their work. In many schools the pupils were prepared for a creditable examination in several studies on which they were not questioned. If the Board of Supervisors, with the concurrence of the Committee on Examinations, give notice that the candidates for the High Schools will be required hereafter satisfactorily to complete the Grammar School course, the Grammar Schools will be brought up to the same practical as well as to the same theoretical standard of requirements, and thus their relations to each other and to the High Schools will be harmonized.

I do not mean to be understood as admitting

that the course of instruction best adapted for pupils who are to terminate their schooling at fourteen years of age would be best in all cases, if in any case, for those who are to take an extended course of higher education. The best institutions for secondary education in Europe receive their pupils at nine or ten years of age, and the course of instruction for the first four or five years is very different from that usually pursued by pupils of corresponding ages in the elementary schools. The result is that the pupils at the age of fifteen or sixteen years in the higher grade of schools are in advance of those of the same age in American High Schools, which begin their course of instruction when the Grammar School course ends. Our Latin School is probably the only High School in the country which receives pupils at any early age in accordance with the European usage, without demanding as a condition of admission the completion of the ordinary elementary course of instruction. Well-meaning ignorance has frequently tried to abolish this feature of the system, and has two or three times partially succeeded, greatly to the injury of the school. It is not to be inferred that because Boston is alone in this matter she is behind the times. The reverse is true. Other cities will be compelled to follow this example, if they undertake to fit boys for Harvard College, at the proper age for entrance.

THE NUMBER OF PUPILS TO A TEACHER.

The following table shows the average number of pupils to a teacher during the last half-year in the several grades of schools: —

Schools.	Pupils to a Teacher.	Schools.	Pupils to a Teacher.
Primary	45.4	Elementary Evening	11.0
Grammar	46.8	Evening Drawing	25.7
High	25.7	Deaf-mute	8.1
Normal	23.0	Licensed Minors	33.5
Evening High	33.0	Kindergarten	25.0

According to the provisions of the new regulations, the maximum number of pupils to a teacher in the several grades and descriptions of schools is as follows: —

Primary	56
Grammar (principal not counted)	56
High, mixed (principal not counted)	30
High, unmixed (principal not counted)	35
Normal (principal not counted)	30
Evening (principal not counted)	15
Evening Drawing	30

The cost of carrying on a system of schools depends mainly upon two things, — *the rate of the teachers' salaries* and *the number of pupils to a teacher.* If the salaries are fixed, then the expense is increased or diminished in proportion inversely as the

number of pupils to a teacher is increased or diminished. If, then, retrenchment is to be made, it must be effected either by cutting down salaries or by increasing the number of pupils to a teacher, or, what amounts to the same thing, by reducing the number of teachers. In adopting the latter course this year, the Board, in my judgment, acted wisely. The most important change in this respect was that which raised the maximum number in the Primary Schools from *forty-nine* to *fifty-six*. Twenty years ago, when these schools were ungraded, and consequently required much more labor on the part of the teachers, the actual number of pupils to a teacher was about *sixty*, although there was no provision of the regulations definitely fixing the maximum. At length the maximum was fixed at fifty-six. The actual number to a teacher in the mean time began to fall off, and, finally, several years ago, it sunk to about forty-three, as the Board made no provision for enforcing its regulation in this respect. Some members of the Board urged that the required number should be reduced as low as forty, contending that the efficiency of the instruction should be a consideration paramount to that of expense. Others favored this reduction on the ground that it would tend to do away with the necessity of corporal punishment. The question was settled by fixing the maximum at forty-nine. But this made no material difference in the actual number to a teacher, which during the past seven years has not risen above forty-five and a fraction. Even with a vigorous enforcement of the present provision, the average daily attendance will probably

not exceed fifty to a teacher. This is by no means an unreasonable number, considering our admirable facilities for instruction. If the matter of expense could be ignored, of course, it would be better to reduce the number to forty. But the reduction of the number of pupils to a teacher from fifty to forty would increase the annual expense of carrying on our Primary Schools about $100,000.

Now, if this sum is to be saved, I think it better to save it by keeping the number of pupils in attendance up to fifty, rather than to save it by taking it from the salaries of the teachers. Besides, if a certain saving in our expenses must be made, by reducing the number of pupils to a teacher in any grade of our schools, the reduction should be made in the Grammar Schools rather than in the Primary Schools. The number to a teacher in the latter grade ought to be greater than that in the former. The work in the Grammar Schools is harder than in the Primary. And in all well-regulated systems of schools the principle is recognized that the higher the grade of the school, the smaller should be the number of pupils to a teacher.

The new regulations make a just discrimination between the mixed and unmixed High Schools, as the circumstances of the mixed High Schools make it necessary for them to have more classes than the unmixed schools, in proportion to the number of pupils. But the regulations do not seem to make any discrimination between the number of pupils to a teacher in the Evening High School and the Elementary High School. Here the principle above

stated does not apply, as in the Evening High School the favorable conditions in respect to classification make it practicable for this school to take a much larger number of pupils to a teacher than the Elementary Schools. It appears from the above tables that the average number to a teacher was three times as great. Fifteen is certainly not too large a number for the Elementary Schools, but, judging by experience, is not large enough for the High Schools.

As the community advances in wealth and intelligence it is to be hoped that fewer pupils and higher salaries may be given to teachers. But I have observed that as a rule it is not the most meritorious teachers who are continually urging the increase of salaries and the reduction of the number of pupils. Too often inefficient teachers are inclined to attribute their want of success to an excessive number of pupils. Of course a weak teacher might be expected to regard as a hardship what an efficient teacher would not think of calling heavy work. But school work should not be graduated to the capacity of the weak and inefficient, but to the capacity of persons of average strength.

SCHOOL ACCOMMODATIONS.

The whole amount expended during the last year for new school-houses, and land for the same, was $277,746.57, — a sum considerably below the average of the expenditure for these purposes for the last ten years. The cost of the buildings *finished* during the year, with their lots, very considerably exceeds the above figures, as shown in the following table: —

Name and Location.	Grade of Schools.	Size of Lots in square feet.	No. of School-rooms.	No. of Seats.	Cost of Buildings and Lots.
Frothingham . . .	Grammar	22,000	16	896	$128,453 96
Newbury st.	Grammar and Primary .	22,960	8	448	113,625 83
Francis st.	Grammar and Primary .	. . .	4	224	16,785 28
Fifth st.	Primary	12,487	8	448	66,359 71
Quincy st.	Primary	30,000	8	448	55,323 02
Roxbury st.	Primary	14,147	8	448	72,795 25
Gibson st.	Primary	29,863	4	224	24,470 13
		131,459	56	3,136	$477,813 18

The Francis-street structure is an addition of four rooms to a building of two rooms occupied by pupils of the Primary and Grammar grades. Besides the school-rooms represented in the table, there is an exhibition hall in the Winthrop and Newbury-street buildings. Each of the fifty-six school-rooms contained in these eight new edifices is large enough for fifty-six seats, making the aggregate capacity sufficient for 3,136 sittings, which is not far from the actual number of single desks and chairs with which they have been furnished. The average cost per sitting was $152.36.

These buildings are all excellent; they are in no respect inferior to any previously erected, and in several respects they are better than the older buildings. Heretofore the plans and designs of our school buildings had been made by architects who were not devoted to school architecture as a specialty. The creation of the office of City Architect about two years ago made an important change in this respect.

The plans of these seven buildings are the first fruits of that new office, and they are fruits which would seem to settle the question of the success of the experiment of the office. The able incumbent, George A. Clough, Esq., deserves much credit for the good taste and judgment which have thus far characterized his productions.

As in this series of buildings substantial progress in school architecture in this city has undoubtedly been achieved, it may be useful to indicate some of their peculiar excellences.

In the first place, with the exception of the Frothingham, which is finished three stories high, they are only two stories in height, affording in this respect a very satisfactory contrast to that huge Primary school-house erected a few years ago, which the city fathers then in power insisted upon carrying four stories high, thus setting up a conspicuous monument, not to their credit. In respect to heating and ventilation, they are better than former buildings. But perhaps their most characteristic superiority consists in the proportions and lighting of the school-rooms. We had already one or two modern Primary school-houses of only two stories, but their rooms, although sufficiently spacious, and in all respects equal to the best in this country, are not what I should now recommend.

In order to understand the merits of the school-room in this set of new buildings it is necessary to compare them with the school-rooms of buildings previously erected. The Grammar School-houses, erected from 1847 to 1865, have four school-rooms

on a floor, each room being lighted by four windows, two at the rear of the pupils, and two at the right or left side of the pupils, indifferently. The teacher's platform is on the longer side of the room, and of course, opposite to two of the windows. The rooms of this type have sufficient floor space and sufficient light, but the proportion and arrangement of the rooms are not the best for teaching, and the lighting is not in accordance with the best conditions requisite for the health of the eye. When we began to erect Grammar School-houses with six rooms on a floor, two of the rooms were no longer in corners, and so had light only on one side, and finally, all the rooms, as in the Dudley (1874), came to have the light only on one side, while the size and proportion of the rooms remained without material change. Here the *unilateral plan of lighting* was adopted, not from principle, but from supposed architectural necessity, and its advantages over the bilateral plan were not utilized for want of the knowledge requisite to its proper adaptation. The window area in this class of buildings is not always sufficient; in some cases the light is in the rear of the pupils, and in some at the right, but in most, perhaps, at their left, where it should be. Still, in all these cases of unilateral light, *the distance from the windows to the opposite side of the rooms is more or less disproportionate to their height.* Consequently, the pupils most distant from the windows, whether in their rear, at their right or left, do not, at all times, get sufficient light, and, besides, there was no improvement in the rooms in respect to their adaptation to the requirements of

teaching. In the mean time the Primary school-room which, since 1860, we have regarded as the standard, was about twenty-eight feet square, with light sufficient in quantity in all parts of the room, but arranged only with reference to the one rule or not allowing windows in front of the pupils. Hence, in the room of this type, the pupils receive the light in some cases from the right and rear, in some from the left and rear, in some from both the right and left, and in some from both the right and left and the rear. Perhaps in no case is there a proper unilateral lighting.

The improved school-room of the new buildings under consideration is superior to those of the former types, in the first place, *in its proportions and arrangement*, which are better adapted to the purposes of teaching and governing a class. It is longer in proportion to the width, and the teacher's platform is placed at one end.

This plan facilitates both instruction and government, by placing the teachers and pupils more completely face to face, and thus, on the one hand, enabling the teacher to keep all the pupils at once in full view, whether engaged in teaching or in exercising control by the eye; and, on the other hand, enabling all the pupils at the same time to see equally well all illustrations and experiments presented by the teacher, by the use of the blackboard, maps, charts, or other materials or apparatus. But, perhaps, the greater merit of the room consists *in the mode of lighting;* the light being *unilateral and uniformly on the left of the pupils.* Some of the

rooms in these new buildings have one or two windows in the rear of the pupils, but the light from them may be excluded by the inside blinds, which are furnished; and in nearly every case where there are rear windows, the side windows afford sufficient light without them. And there can be no objection to rear or right-side windows, provided that they are furnished with inside blinds; and provided, also, that the left-hand windows afford the requisite light without any other.

For the purpose of the best lighting it is not only necessary for the windows to be on the left side of the pupils, but they should be *equally distributed* along the side of the room, four windows being the best number, and they should extend upward *as near as possible* to the ceiling.

It is possible that, in respect to proportions and lighting, the construction of some of the rooms in these new buildings may not be in exact conformity with the requirements of the best authorities on the subject of school architecture; but, as a whole, they are, without doubt, the best in this country. And the buildings themselves are, I believe, the best yet built in America.

In these new buildings the stairs and corridors are judiciously arranged. The provision for water-closets has been greatly improved. None of the buildings previously erected have been so well ventilated as these. They have better rooms for the principals and for teachers' conferences, libraries, apparatus, etc. In style of architecture they are

superior, and yet the cost for ornamentation is less than that of some of the older buildings.

Our school accommodations are certainly, on the whole, liberal in amount, and excellent in quality, *comparatively* speaking; that is, they are better than the school accommodations of any other large American city. But there is yet room for improvement, and we have now the requisite conditions for achieving very high success in school-house building. Our architect has the requisite ability; he is thoroughly interested in the subject, and he has the means of knowing the best things that have been done in this line. With other information, he has now in his hands the valuable essay on the Sanitary Requirements, referred to in another part of this report. The problem which he has to solve is *to combine reasonable economy with taste and the sanitary and pedagogical requirements.*

Our school buildings are sometimes ignorantly or maliciously stigmatized as being too palatial. If it is true that an edifice must have, besides mere largeness of size, a considerable degree of architectural elegance in order to be palatial, there are in America *no palatial* school-houses for elementary schools. M. Buisson, one of the French commissioners to the Vienna Exposition, in his able report to his government, in speaking of American school architecture, says, "The plans exhibited, as well as the model in relief of one of the schools of the city of Washington, the Franklin School, indicate an *extreme simplicity* of architecture; the exterior aspect is generally destitute of all elegance, and even of *all æsthetic char-*

acter." And yet the Franklin School in Washington is probably as palatial as any elementary school in the country. I am highly pleased with our Newbury-street School-house, which was built to accommodate by far the wealthiest section of the city. I do not know of a better school-house in the country. And yet it is far from being palatial. It is plain, even to baldness, in its exterior, although it is in the near vicinity of the most ornate architecture of the city. It is anything but palatial; and if the builders are to be blamed at all, it is not for going too far in architectural display, but for not going far enough in that direction. I can point to a school-house in a village of two thousand inhabitants, in the Bohemian "Lande" of Austria, far grander than this, with its chemical laboratory, its library, its drawing-room, its modelling-room, its cabinet of natural history, its teachers' conference-room, its apartments for the principal's residence, its artistic assembly hall, and its model school-rooms.

INDUSTRIAL SCHOOLS.

In January, 1870, a special committee of the Board was appointed to consider the subject of Industrial Schools; and each year, I think, from that time until the present, the committee on the subject has been annually renewed by reappointment. Several valuable reports have been submitted to the Board by it, but as yet no practical results have come from this movement, except an extension of the provision for teaching sewing in the Grammar Schools, which was

recommended six years ago in the first report of the committee.

Soon after this subject began to be agitated, it was found that cities and towns had no legal authority to set up schools for teaching manual arts and trades; and the question of granting such authority was introduced into the Legislature at the session of 1872. The whole subject of industrial training in schools was fully discussed at several public hearings before the committee, to whom the matter was referred, and the result was the following act: —

"CHAP. 86. AN ACT TO AUTHORIZE CITIES AND TOWNS TO ESTABLISH INDUSTRIAL SCHOOLS.

"*Be it enacted, etc., as follows:* —

"The city council of any city and any town may establish and maintain one or more industrial schools, and raise and appropriate the money necessary to render them efficient. Such schools shall be under the superintendence of the board of school committee of the city or town wherein they are established; and such board shall employ the teachers, prescribe the arts, trades and occupations to be taught in such schools, and shall have the general control and management thereof: *provided*, that in no case shall the expense of any such school exceed the appropriation made therefor; and *provided*, that nothing in this act contained shall authorize the school committee of any city or town to compel any scholar to study any trade, art or occupation without the consent of the parents or guardian of such scholar; and that attendance upon such school shall not take the place of the attendance upon public schools required by law. Approved March 9, 1872."

I have refrained heretofore from entering at length into the discussion of this subject in my reports, not on account of want of interest in it, but because while it was in the hands of a committee of

the Board an independent treatment of it by me might be deemed an interference with their duties. Nor do I propose now to discuss it at any length.

A revival of interest in this matter has been recently created in this community. One cause of this revival is, no doubt, due to the establishment of the new Technical School, on the Russian plan, in connection with the Institute of Technology. I have great faith in that plan, and, as a member of the government of the Institute, I gave my vote for its adoption with great satisfaction. I had studied it carefully in its splendid exhibits at Vienna, from the great Technical Schools of Moscow and St. Petersburg, and was convinced that it was a "new departure" in technical education, and that it was destined to produce highly beneficial results. The principle consists in analyzing the processes requiring manual skill, and teaching each process by itself to a class of pupils. It is substantially the same principle as that on which the division of labor is applied in manufactories; but in the manufactory the operative is limited to a single process, knowing nothing of the other processes requisite for the product.

If it shall be decided to set up industrial schools in this city, as a part of our public school system, no doubt it will be found expedient to organize them on this principle.

The practical difficulties of teaching manual arts and trades in schools to the children of the people were clearly stated by a French writer on the subject, a hundred years ago. He says, in substance, it is necessary to choose one trade or to choose several.

Now, to teach the same trade to all would be to thwart the inclination of many children, and the inclination ought to be consulted in the choice of occupations, because one does with success only what one does with pleasure. On the other hand, how is it possible to teach different trades without multiplying infinitely the expenses of the schools, owing to the necessity of multiplying the number of masters?

Besides the cause above referred to as contributing to the present revival of interest on this subject, what appears to me to be another, is the earnest and commendable purpose of a wealthy and public-spirited citizen to render education more practical by providing means for instruction in practical trades, to whom I attribute various articles on practical education which have appeared during the past year in the city newspapers. I have been hoping to see some definite and practical scheme presented from this source. For one I should welcome such a scheme. I have to confess that my inquiries have furnished me with no examples in this sphere which I can with confidence recommend.

The theory of our system of common-school education is to give to the child that discipline, training, and development of mind and body, and that knowledge of the elementary branches of instruction, requisite to render him capable of pursuing any calling. *Not that he should know any one trade, but that he should be fit for all,* — this is the essential thing. Then, at the termination of his schooling, he will easily form himself for whatever his taste or

circumstances give him an inclination. I think this is a sound theory, and, therefore, I should deprecate any attempt to *put the work-shop into the school*, the inevitable result of which would be to make a poor school and a poor work-shop. But judicious efforts to *supplement* the school by the work-shop, to *put the work-shop by the side of the school*, are to be looked upon, it seems to me, with favor.

To say that the instruction imparted in our schools is not practical or useful, because the pupils are not graduated shoemakers or tailors, is to talk sheer nonsense. Is not reading something practical? Is not writing useful? Is it not of some advantage to a youth, as a means to help him get on in life, to be able to add, subtract, multiply and divide numbers? Perhaps the majority of the pupils must earn their bread by manual labor. Must we, therefore, in the education of these children, wholly ignore their spiritual nature? Must we treat the indigent child simply as an animated machine that has got to feed itself?

Still it is highly important that teachers should try to make their pupils appreciate how much better it is for them to lay their plans for earning an honest and comfortable livelihood by manual labor than to crowd into occupations where they can expect only genteel poverty. The best lesson which the school can give is, that persistent hard work of hand or brain, or both, is the only means of true success in life, and to instil into their minds the sentiment that will make them

> "Scorn delights,
> And live laborious day."

The Rev. Dr. Bartol, of this city, has said some

very excellent things on the subject of industrial education. The following is a report of the heads of his arguments in a recent discourse in favor of industrial education, by which term he meant such a use or action of the body, especially the hand, as will unfold the mind: —

"The first argument was from nature itself; and the second from physiology, the connection of the mind with the flesh. The third argument was the economy of health; and the fourth, that industrial education is the condition of honesty. Fifth, it would solve this question of intemperance; and, sixth, it would banish poverty. Seventh, industrial education would be a divining-rod to detect mechanical or artistic genius and talent which is now mostly left to the discovery of chance; and, eighth, we learn this lesson from experience, from the history of our community and country. Ninth, industrial education is the only thing to be relied upon for that new desire of the time, especially in our own nation, the emancipation of women. Tenth, it would be the diffusion among all classes of useful knowledge. Eleventh, industrial education would be happiness; and, twelfth, it would be human fellowship. Thirteenth, industrial education is the best preparation for that hereafter which we call heaven. His last argument was that industrial education would secure self-possession; to know what to do in an emergency is the test of a man. In conclusion, he said, the hand is nothing of itself; it is like the valve of an engine; it is the register of the mind. The mind is the regulator of the motive-power, but the register is the test; the register will determine the destiny."

Education would be as perfect as the condition of our humanity would permit, if it could be made to combine all the peculiar advantages of both the city and the country. This can never be done, but some approximation to it may, and should, be made. To do this, the country boy and girl must be better

instructed in the usual school curriculum, and the city boy and girl must be better trained, industrially and physically. The city reformer paints in too vivid colors the advantages of country children (I speak from experience), and the country reformer exaggerates the advantages of the city education.

SCHOOL HYGIENE.

Hygiene, in its usual acceptation, has for its end simply the preservation of health, or the prevention of disease and physical deterioration; but *school hygiene* has for its aim not only to prevent all positive injury to the health and bodily development of pupils in consequence of the requirements of school life, but also to bring about a physical regeneration of the people, and to regain the ground lost by past ignorance and neglect of hygienic laws. In this wide sense, school hygiene includes gymnastics or physical culture. With the ancient Greeks, contrarywise, gymnastics comprised both hygiene and physical education, while music comprised all branches of intellectual education. Gymnastics and music were the two halves of the Platonic pedagogy, making a complete whole, both having for their chief end to form and perfect the mind. Hence the Rev. Charles Kingsley, in writing on this subject, well said, "If the promoters of higher education for women will teach girls not only to understand the Greek tongue, but to copy somewhat of the Greek physical training, of that 'music and gymnastic' which helped to make the cleverest race of the Old World the ablest race likewise, then they will earn the gratitude of the patriot and the physiologist,

by doing their best to stay the downward tendency of the physique, and therefore ultimately of the *morale* in the coming generation of English women."

The more perfect a school system is rendered in other respects, that is, the more universal, long-continued, regular and punctual the attendance, the more comprehensive the course of study, and the higher the standard of scholarship, the more need there is of devoting attention to school hygiene. Happily this principle is now universally recognized by the most enlightened educators. But what the interests of education among us imperatively require at the present time is, that the school officers and teachers, and the public generally, should be brought to a more just appreciation of the evils to be prevented and the good to be secured by the care and culture of the bodies of the pupils, in all kinds of institutions of education, which the science of school hygiene inculcates and enjoins.

Sixteen years ago, being deeply impressed with a sense of the need of hygienic reform in our schools, I devoted a semi-annual report almost wholly to this topic, recommending the introduction of gymnastics into all our schools as a regular branch of instruction. This recommendation was referred to a special committee, who made an able report on the subject, approving the recommendation. From that time the subject of school hygiene, in some one or other of its phases, has been kept constantly before the Board. The results have not been all that could be desired, but substantial progress in various directions has been achieved in the face of

much apathy and much opposition from quarters whence it was least to be expected. Our boys, and especially our girls, present finer physiques than were seen in the generations of scholars immediately preceding the present. Still we are even now, in my judgment, only on the threshold of this great reform. Real substantial improvements in education have ever been of slow growth.

A third of a century ago, when Horace Mann brought out his masterly report on physical education, enthusiastic friends of educational reform fondly dreamed that that wonderful production would produce an immediate revolution. But it was soon forgotten by all except a few students of pedagogical lore. But a new day has dawned, — not a day of eloquent appeals, but a day of serious scientific inquiry. There are those who imagine that what is needed at the present moment for the advancement of education is another champion of the cause like Mr. Mann, to stir the hearts and minds of men with the eloquence of speech and pen. But that day is passed. The demand of the present time is not the orator of education, but the student, the scientist, the critic, the philosopher, who by patient and conscientious study will find out and make known to us *what is true on this subject, who will give us the last and best word of science and wisdom bearing on education.* We need information more than stimulation. In proof of this I need but refer to what French educationists call our sacrifices for education, that is, our liberal expenditures for it. But for want of a better knowledge of the subject a large percentage of these

expenditures is wasted. We do not know how to turn our means to the best account.

The encouraging movement to which I allude has been inaugurated by a body of able scientists, under the auspices of the Health Department of the American Social Science Association. It is mainly with a view to welcome and second this important movement, and to call attention to some of its results, that I recur to this subject at the present time.

The Department has devised certain methods and formulæ for the sanitary examination of school-houses and school children, which have already been used in investigations which promise valuable practical results. In accordance with this scheme the Board of Public Education of Philadelphia has caused a thorough examination of the nearly four hundred schools in that city, and printed an elaborate report on the subject, comprising the tabulated results of the inquiries submitted to teachers and scientific experts. This is a document of surpassing interest. Its beneficial influence cannot but be widely felt. The Philadelphia Board deserves the highest credit for thus boldly exposing the sanitary defects of the schools under its charge. Similar investigations have been set on foot in St. Louis, and it is to be hoped such investigations may become general. The authorized examination of the height and weight of the pupils in our own schools by a member* of the Department is in progress. Another member has examined the eyes of many school children in Cincinnati, Brooklyn, and New York. The secretary, Dr.

* Dr. H. P. Bowditch.

D. F. Lincoln, has drawn up an excellent set of rules for the care of the eyes, which I quote here, and to which I hope every one of our teachers will give earnest heed. It might be well to have them printed and posted up in every school-room.

"RULES FOR THE CARE OF THE EYES.

When writing, reading, drawing, sewing, etc., *always take care that*,

(*a.*) The room is comfortably cool, and the feet warm.

(*b.*) There is nothing tight about the neck.

(*c.*) There is plenty of light, without dazzling the eyes.

(*d.*) The sun does not shine directly on the object we are at work upon.

(*e.*) The light does not come from in front; it is best when it comes over the left shoulder.

(*f.*) The head is not very much bent over the work.

(*g.*) The page is nearly perpendicular to the line of sight; that is, that the eye is nearly opposite the middle of the page, for an object held slanting is not seen so clearly.

(*h.*) That the page or other object is not less than fifteen inches from the eye.

Near-sightedness is apt to increase rapidly when a person wears, in reading, the glasses intended to enable him to see distant objects.

In any case, when the eyes have any defect, avoid fine needle-work, drawing fine maps, and all such

work, except for very short tasks, not exceeding half an hour each, and in the morning.

Never study or write before breakfast, by candle-light.

Do not lie down when reading.

If your eyes are aching from fire-light, from looking at the snow, from overwork, or other causes, a pair of colored glasses may be advised to be used for a while."

But the main work of the Department, to which I desire especially to draw attention, consists in an undertaking to make a comprehensive series of researches in this branch of sanitary science, with a view to presenting ultimately the matured results in a condensed and convenient form for the practical use of educational authorities, school-architects, teachers and parents. The scope of the plan for this study of the subject is presented in the following list of the topics which the Department has decided to treat of: —

1. Heating and ventilation.
2. Sight and condition of scholars' eyes.
3. Seats, and deformities traceable to them.
4. Architectural plans.
5. Apparatus employed in instruction.
6. Gymnastics.
7. Condition of the nervous system.
8. Condition of the organ of hearing.
9. Condition of the organs of the pelvic cavity.
10. Drinking water.
11. Sewerage and water-closets.
12. Commissions for sanitary inspection of given districts.

13. Brief of a law establishing the office of medical inspector of schools.

14. Statistics of height and weight of school children.

15. Contagious diseases in schools.

Nearly all these topics have been assigned to competent hands, and the execution of the plan is already well advanced. Three articles, Nos. 4, 6 and 7, after several revisals, have been issued with the sanction of the Department. I trust they will, in due time, come into the hands of all who are charged with the management and instruction of our schools. In the mean time, considering the scientific authority by which they are sanctioned, it seems to me that some of their practical conclusions may be profitably introduced here.

The paper on *Gymnastics for Schools* was prepared by Dr. J. J. Putnam, of Boston. The introductory paragraph is altogether so much to the point that I appropriate and adopt it entire: —

"The first question, *as to the utility of gymnastic training for children in general*, calls, perhaps, most of all for a definite answer; for it would, I think, become evident to any one looking at all closely into the matter, as it certainly has to me, that the greatest obstacle to the general introduction into schools of any satisfactory system of physical training would be in the want of definite appreciation, on the part of both the public at large and of controllers of school education, of the proper and possible value and aims of such a system. Those teachers are, I believe, in a minority, who regard the study of physical culture as

something worthy of being pursued in schools with the same method and persistency that all are ready to accord to the training of the mind. Many of them feel a certain jealousy lest what they consider as the highest branches of education should suffer by the introduction of this new and apparently less important study, — not remembering that *the proper aim of school education should be to fit us in every possible way for the work of our after-lives.* Let it be shown, however, that physical training of such a kind as can be obtained to advantage only under the guidance of skilled instructors, is an important part of this preparation, and its right to a place in the school, where alone such instruction can be had, must impress itself upon all by an irresistible logic."

In arguing the utility of physical training, the learned author of the paper puts considerable stress upon its benefit in helping to perfect "the all-important process of respiration," and in this connection takes occasion to characterize Prof. Munroe's Manual of Vocal and Physical Culture, which is the authorized text-book on the subject in our schools, as "the best treatise upon the proper method of educating the breathing powers and the voice," that he had been able to find.

In reviewing the progress of gymnastic culture in schools during the last half-century in Europe, it appears that it is obligatory in the elementary schools of Denmark, Sweden, France, Switzerland, Austria, Prussia, and, indeed, throughout Germany, and is taught largely in Holland; but gymnastic instruction for girls is far less general than for boys.

In Germany, however, much attention is bestowed upon the gymnastic training of girls. In the cities elementary schools are generally furnished with both a covered and an open-air gymnasium for the use of both sexes. This is also the case in the more advanced provinces of Austria. In Vienna there are at present *one hundred and twenty* special certificated teachers of gymnastics employed in the public school, giving equal attention to the instruction of girls and boys.

My space will allow only brief quotations touching the recommendation of the adoption of a practical system of gymnastics in our schools.

"All authorities agree that teachers skilled in the work, and convinced of its importance, are necessary to the success of the system. We must, then, endeavor to obtain a large number of good teachers; and these would naturally be drawn from the Normal Schools; and with them lies, to some extent, the key of the situation. A sufficient number of teachers for these schools, at least, could be obtained either from abroad or at home, as has already been done to a certain extent. The final aim would be to fit all teachers for giving instruction in this branch; and a step in this direction might be taken by making arrangements by which teachers could leave their schools for two or three weeks at a time, in order to attend gymnastic courses."

"As to the system itself it seems to me that there should be exercises of some sort once or twice daily for a few moments only, as is largely done already; and, two or three times a week, more extended in-

structions be given. If, at the same time, a fondness for physical culture could be made to spread from the teachers among the pupils, and from them again among the public, much good might be indirectly accomplished. The conclusions of the Belgium Commission, so often referred to, are very interesting in this connection. They review with some care the comparative merits of the system in which fixed apparatus is employed, and that in which none or very little such is used, and give their opinions in favor of the latter; at the same time specifying with minuteness exactly what pieces of movable or fixed apparatus they consider permissible. They condemn the complicated systems in use in many places, which have for their aim the acquiring of great strength, and the power to perform athletic feats, as objectionable and impracticable, and quote the opinions of gymnasts and experts as to the great value of the free exercises; and recommend lastly, that these exercises should be practised twice daily, and directed by the teachers at large, who should receive their instruction at Normal Schools, where the subject should be made obligatory. Whatever be the merits of any practical system, however, it must fail of accomplishing its object, if not nourished and supported by the conviction and enthusiasm of its teachers and the public."

Twelve years ago a special teacher of vocal and physical culture was appointed by the Board to direct and instruct the teachers in this twofold branch of education. That teacher, Professor L. B. Munroe, exerted a most beneficial influence in our schools, although he was too little encouraged and seconded

in his efforts. The system of gymnastics taught by him is excellent, so far as it goes; but it does not comprise all that is required in a complete system of physical training. It is designed especially to train and develop those muscles which are employed in respiration and the mechanism of vocal utterance. Since the discontinuance of his services, there has been apparently no progress in physical training in our elementary schools. Even a backward step in this matter seems to have been taken in the new regulations, in cutting down the time allowed to physical exercise. Now every scholar must have each session "not less than five minutes" of physical exercise, whereas previously the requirement was ten minutes each session. From my observations in the schools during the last half year I conclude that there are schools where even the present infinitesimal requirement is disregarded. On the other hand, special provisions were made for the regular and systematic gymnastic training of the pupils of the Latin School, in a well-furnished gymnasium, by one of the masters who had enjoyed the benefit of the excellent system of physical culture at Amherst College. The Girls' High School has a good gymnasium, and the pupils have received a limited amount of regular instruction in it. A Swedish lady, thoroughly qualified, both practically and theoretically, to teach the Ling system of free gymnastics, was employed in this school for a time, with apparently excellent results, and it is to be regretted that her services were not continued. She has been succeeded, however, by a competent teacher, a recent

graduate of the school, who is earnestly and successfully devoting herself to this branch of instruction.

No school-rooms in the world are better adapted than our own for free gymnastic exercises, as they are all seated with single chairs and desks, which afford ample space for the free movement of the pupils while standing in the aisles. But besides the frequent brief periods of exercise in the school-rooms, a longer and different drill should be given once or twice a week in a gymnasium, such as any of our grammar-school rooms would make; and I should be glad to see one of the school-rooms in each of the grammar-school buildings set apart for this purpose. Where the school yard or play-ground is large enough for the purpose, a portion of it should be set apart and provided with apparatus for out-door gymnastic exercise in pleasant weather.

Three years ago I visited the Victoria School, in Berlin, which is, perhaps, in point of merit, second to no other public high school for girls in Europe. After looking over its excellent accommodations, its library, apparatus, and cabinets, and witnessing some exercises in the class-rooms, I was invited to attend the gymnastic lesson of the upper classes. This was given in the Städtische Turnhalle (City Gymnasium), a large, fine building, with every appliance and convenience requisite for its purpose, which is in the immediate vicinity of the school. From a hundred to a hundred and fifty of the older girls were present. The exercises were not conducted by special teachers, but by regular professors in the school, who had qualified themselves to teach this branch. The sys-

tem of training was in all respects admirably adapted to the age and sex of the pupils. As I viewed that spectacle I was more strongly impressed than ever before with the value and importance of appropriate gymnastic training for girls. The subject was not new to me. For many years it had to a considerable extent occupied my attention. But the illustration then witnessed carried to my mind that sort of conviction which lasts as a motive to action; and that conviction is felt at the present moment as a motive impelling me to urge the importance of gymnastic training in schools.

Number seven of the list of topics above quoted — namely, *The Nervous System as Affected by School Life* — was treated by Dr. D. F. Lincoln, of Boston. This paper indulges in no sweeping charges against teachers and systems of instruction. It begins with the following statement of the difficulty of drawing the line of demarcation between the influences of school life on the health of pupils and the influences of causes over which the school has no direct control, a statement which, although apparently rather strong as a literal description of the state of this community, is well worth the attention of everybody interested in the advancement of education: —

"Our entire nation is believed to be suffering from certain widespread sources of nervous degeneracy. Our children are but a part of the nation, and must suffer along with the older members of the population. How shall we discriminate between what is national and what is simply scholastic? Give the child a constitution derived from excitable parents; a

nutrition in infancy and childhood from which iron, lime and phosphates are mainly excluded; a diet in later childhood most abundant, but most unwholesome, and based upon a national disregard of the true principles of cookery; a set of teeth which early fail to do their duty; a climate which, at its best, is extremely trying, killing either the aged by excessive cold, or the little children by a tropical heat; an atmosphere so deprived of moisture that the most casual observers speak of it, and men of science consider it as capable of modifying our constitution most profoundly; add to these influences those of a moral nature, arising from the democratic constitution of our country, spurring on every man, woman, and child to indulge in personal ambition, the desire to rise in society, to grow rich, to get office, to get everything under the heavens; add a set of social habits, as applied to the life of young girls and boys, which is utterly atrocious, which robs so many of them of their childhood at the age of ten or twelve, and converts them to simpering, self-conceited flirts and men of the world, *rusés*, and independent of control, a depraved and pitiable breed of 'little women and little men;' add, finally, the fact that we have now a population of six millions dwelling in cities of over one hundred thousand inhabitants, and exposed to those deteriorating influences which notoriously belong to great cities: give the child these conditions to grow up under, and can you wonder that he or she 'deviates from the type' (as it is fashionable to say) of the sturdy Anglo-Saxon pioneer who settled this continent? And can we wonder that educators,

persons deeply interested in their profession, and sincerely conscientious, should protest against the charges brought by physicians against their systems of instruction; should protest against the very title of this paper, and should appeal from the laziness and folly of parents, and what they consider as the professional prejudices of medical men?"

The chief aim of the paper is to show how school life is capable on the one hand of benefiting, and on the other hand of injuring, the nervous system.

My limits will allow me to quote only a few of the practical conclusions and suggestions. And first in answer to the question, "How may school influences directly *benefit* the nervous system?"

"In the first place, the school may provide for a reasonable degree of physical exercise, which every scholar shall perform unless excused by his physician. There is very little chance for healthy sports in great cities; and it is precisely in these cities that the greatest number of hours is spent in schools. If civilization takes from its members the country air and country sports, which are the natural means of health, civilization is bound to make good the loss to those who are too poor to make it good for themselves; and that means nine-tenths of the people in cities."

The question whether simple mental work is capable of doing positive good is carefully considered, and the conclusion reached that "mental occupation, like all other natural occupation, is therefore good; or, at least, it has a presumption in its favor." But the value of this work depends upon various circum-

stances. It is "vastly enhanced by the methodical way in which a good school enforces its performances." Then, it is wisely said, there is need of "judicious firmness in restraining from overwork, as well as in requiring the full amount of work." But another important means of rendering school influence positively beneficial to the nervous system consists in *muscular training*. Mental work and muscular training must go together in the well-managed school. "The respiratory muscles need development through training, in order that pure air may be largely introduced into the lungs." After showing that muscular activity is indispensable, not only to the successful working, but even to the health, of the brain, the learned reporter makes some valuable practical suggestions. He says, "It would be a neglect of duty did I fail to add that the whole matter [of muscular training] must be under control and regulation, and that forced and violent exercises in gymnastics, or out of them, are capable of doing great harm. It is a great mistake to work the brain till it can do no more, and then, feeling fagged out, to take violent gymnastic exercises or a long walk. . . I would suggest that a rule of the following sort be laid down for those who are old enough to follow it: Never let the bodily exercise be so crowded into a corner by work that you cease to enjoy it, to relish it as a well person relishes food; but as to the amount of exercise you take, let that be governed by the appetite for it. And do not feel bound to make your biceps big; for the muscles which do not show—those lying between the ribs, under the shoulder-

blade and the diaphragm — are more important, and are suitably developed by systematized breathing, by vigorous walking, and a little running or lifting, if you can bear it."

In speaking of another set of causes which ought favorably to influence the health of scholars, *happiness* is referred to as one of the surest sources of health: "Pleasurable sensations are imparted by all efforts made willingly, if within our powers. The scholar has that source of pleasure constantly *if he is well managed.* He is interested, and interest is the chief factor in happiness, while want of interest is a sort of hell on earth. He has the sense of mastering difficulties, of conquering his own weakness and ignorance. . . And, finally, he is conscious of having a friend and sympathizer in the person of his teacher; if not, there is a serious fault to be found somewhere."

I must limit myself to a brief reference to the view presented by the reverse of the picture in which the *harm* done through injudicious schooling is shown.

"We are called on very strongly to condemn all points in the management of schools which give rise to anxiety, apprehension, exaggerated feelings, — in short, of any sort, whether of joy or pain, in the minds of the scholars.

"The sensation of inadequacy to one's task is a source of acute suffering and injury." The skilful teacher knows how to deal with such cases by the lightening of tasks, by judicious assistance, and by encouragement.

Irritability is said to be the characteristic of chil-

dren suffering from excessive school tasks in which they are interested, or to which they are unduly stimulated by emulation. What is said on this point in the following sentences may perhaps be profitably considered by some teachers who have not been conscious of erring in this matter. "And be it said that this state [of irritability] is most needlessly aggravated by a great many petty restrictions and points of discipline, which keep the child in a state of continual apprehension. He is, perhaps, marked for tardiness, and hence eats his meals in a state of trepidation lest he come late to school; he is marked for each recitation; he is constantly inquiring how he stands; and if he is ambitious, the consciousness of impending destiny is ever present to his mind."

The effects of overwork are said "to be developed either by excess in quantity or by a monotonous strain of the faculties in one direction."

"As to excess in quantity, a child is capable of doing a good deal of work; but it must be done under the conditions of perfect sanitary surroundings, and, above all, *of frequent rest.* . . . A long, unbroken session takes out of a young child more than he can make good by repair before the next session; and the total of these excesses of waste are subtracted from his total growth, stunting his body and mind together.

"Deprivation of sleep is another factor in producing exhaustion. This is the danger of home lessons.

"Deprivation of food often occurs. . . . As for the regular meals, a parent is inexcusable who will permit a child to miss them or take them irregularly, to lose its appetite for them, except in case of war,

insurrection, or peril by sea." Schools having long sessions should always make reasonable provision of *time and place* for the scholars' luncheons. This reform, which was several years ago introduced into our Girls' High School, has proved most beneficial to the pupils. Why should it not be introduced into all our High Schools?

One matter of diet is particularly emphasized, although it is a matter over which the school has not direct control, namely, — the use of tea and coffee. Dr. Lincoln says: "I desire to express my wish that the time may soon come when tea and coffee shall be withheld entirely from children under sixteen or eighteen years of age, — according to their development, — except when it is expressly recommended by physicians. *It is absolutely beyond a question that most children will develop a better physique without them.*"

The sanitary condition of school-rooms. "There are three special faults in sanitary conditions which do harm to the nervous system of those in school-rooms. These are, the means employed in lighting evening schools, the undue heat of school-rooms, and the excessive dryness of their atmosphere, with other impurities. . . . For young persons and children, properly fed and clothed and dried, it appears to me that 66° or 67° F. is quite enough. Neither heat, carbonic acid and oxide, sulphurous vapor, nor excessive dryness of the atmosphere, are felt as evils by the majority of our people; *but all of them are dangerous in a special sense to the nervous system.*"

Frederic Tudor, sanitary engineer, of Boston, in an

essay on health, lately published, lays great stress on the need of providing for moisture in atmosphere which is to be breathed. He says: "An air which is hot, but dry, while it keeps the mercury up in the thermometer, tends to bring the temperature of our bodies down by rapid absorption of insensible perspiration. A moist air at 60° feels cool and fresh without any sense of chilliness; but this feeling is often experienced in a perfectly dry air at 70°."

Dr. Lincoln's paper embraces citations from opinions of many physicians and teachers in reply to inquiries on the subject under consideration, and I must find room for his summary of the results of the investigation.

"1. School-work, if performed in unsuitable atmosphere, is peculiarly productive of nervous fatigue, irritability and exhaustion.

"2. By 'unsuitable,' is chiefly meant 'close air,' or air that is hot enough to flush the face or cold enough to chill the feet, or that is 'burnt' or infected with noxious fumes of sulphur or carbonic oxide.

"3. Very few schools are quite free from these faults.

"4. Anxiety and stress of mind, dependent mostly upon needless formalities in discipline, or unwise appeals to ambition, are capable of doing vast harm. It is hard to say how much is actually done; but a strong sentiment against such injudicious methods is observed to be springing in the minds of teachers.

"5. The amount of study required has not often been so great as would harm scholars whose health is otherwise well cared for.

"6. Teachers who neglect exercise and the rules of health seem to be almost certain to become sickly or 'to break down.'

"7. Gymnastics are peculiarly needed by girls in large cities; but with the present fashion of dress gymnastics are impracticable for large girls.

"8. The health of girls at the period of the development of the menstrual functions ought to be watched over with *unusual* care by persons possessed of tact, good judgment, and a personal knowledge of their characters.

"9. One of the greatest sources of harm is found in circumstances lying outside of school-life. The social habits of many older children are equally inconsistent with good health and good education."

Topic No. 4, above referred to,— *Sanitary Requirements of School Architecture,* — has been treated by Dr. Lincoln in a most thorough manner.

As I speak of school architecture under another head, I shall not here introduce any of the conclusions on the subject contained in this exceedingly valuable paper;* but I regard this paper of so much practical importance, as a summary of the best opinions relating to the sanitary requirements of school-houses, that I deem it my duty to recommend to the Board that it be printed with the forthcoming annual report of the Board.

At the recent meeting of the Social Science Association, Dr. Lincoln, in his report as secretary of the department of health, presented a summary of the

* Printed in the Sanitarian, Nov., 1876.

recent progress in this science, from which the following paragraphs are quoted: —

"Within a few years the general subject of school hygiene has received an impulse which seems destined to place it among the most popular of sciences. Within less than three years the American public has been addressed on the subject by a great number of men, among whom I will mention Drs. Nathan Allen, C. R. Agnew, A. N. Bell, S. Smith, F. Winsor, J. Curwen, A. H. Nichols, R. J. O'Sullivan, B. J. Jeffries, F. D. Castle, F. W. Draper, W. C. Wey, Prof. R. C. Kedzie, and Rev. J. S. Goodnow; and a great many school committees and boards of health have either instituted special hygienic inspections, or have published their opinions on portions of the question."

"But in this effort at reform we are merely following the lead taken in Germany, and signified by the publications of Virchow, Varrentrapp, and others in 1869, and many since. As an instance of their zeal in the investigation of school diseases, I will mention that we have accounts in print of eleven scientific examinations of large numbers of scholars' eyes, beginning with Cohn's celebrated publication in 1867; while in America only one account has as yet been published, and that not yet complete."

"We owe a great debt of gratitude to Amherst College for the consistent and thorough manner in which she has demonstrated the value of gymnastics to students. . . . The results of sixteen years' trial of this system are most encouraging. The beauty, grace and manliness of the students is decid-

edly improved; they give a good account of themselves to the measuring tape, and at the boarding-house table; their sicknesses have diminished one-third, and their deaths in the same proportion."

The Rhode Island Medical Society appointed a committee some three years ago (June, 1873) "to report on the development of the young, with special reference to the present system of education in our public schools." After a report by this committee and repeated discussing of the subject, this body finally adopted, in December, 1875, the following resolutions: —

"*Resolved, First,* That injury to pupils at school, while in the school-room, is mainly due to deficient ventilation, unequal heating, long confinement to one, often abnormal, position, and mental excitement not necessarily connected with effectual study.

"*Second,* That two short sessions daily are better than a single long one.

"*Third,* That in sessions of three hours at least two recesses should be allowed, one of them to be devoted to light gymnastics.

"*Fourth,* That study at home should not be required of pupils under twelve years of age, nor of older ones except under judicious limitations.

"*Fifth,* That the half-time system is desirable in localities where the children are engaged in steady industrial occupations.

"*Sixth,* That among the most frequent causes of

ill-health among pupils while attending school, we must recognize the following: Attending balls and parties, sitting up late nights, eating improper food, drinking tea and coffee, and especially reading works of fiction."

I conclude what I have to say on this department of education by expressing my hearty approval of the order introduced into the Board by one of its members,* providing for the appointing of a medical inspector of our schools.

In considering the expediency of adopting this measure, the first question that arises is: *What are the duties which might be assigned to a medical inspector?* Dr. Lincoln has answered this question very fully in his remarks before the committee to whom the subject was referred, and I quote it here that it may be preserved for future reference: —

"1. Gathering and distributing information relative to school hygiene. He should study the subject in current literature; by personal conference with living authorities, and inspection of improvements in schools, in distant places; by systematized correspondence upon stated subjects; by regulated tests of the value of plans (*e. g.*, for ventilation) proposed for our own use, etc.

"2. Examining all plans and sites for schools, before buildings are erected.

"3. Sanitary inspection of all our school buildings and premises, with recommendations as to needed changes; and subsequent occasional visits to ascertain the success of his recommendations.

"4. Advice in respect to gymnastics, recreation, and general habits as affecting health. In carrying out this, and, in fact, all of the points, the cordial assistance of teachers might safely be counted on.

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* Dr. John G. Blake.

"5. Measures for preventing the spread of contagious diseases in schools. The inspector should be informed immediately of every case of scarlet fever or small-pox breaking out in any family in the city, where there are children of the school age; and should take measures both to prevent the children's attending school during the existence of such diseases in their families, and to secure disinfection after the close of the sickness. Such a plan would require the co-operation of the practising physicians of the city, the city Board of Health, the teachers in schools, and the truant officers. This concerted action would not be hard to bring about. During the last ten years the deaths from scarlet fever in Boston have averaged 233 annually. Other contagious diseases, including small-pox, are decidedly less fatal, but might properly be added to the list to be guarded against.

"6. Annual report of all transactions to the School Committee, to whom he should be solely and directly responsible.

"Suitable supervision of this sort has not as yet been made either in Germany, England or America. Paris provides it for her Primary Schools; the city of Elmira, N. Y., has such a medical officer; but with these exceptions there is almost nothing of the kind established."

This comprehensive summary of the duties appropriate for a medical inspector of schools ought to satisfy a reasonable mind, it seems to me, that such an officer might find useful employment in connection with the management of a system of schools.

There is but one other question, as I conceive, to be considered in determining the expediency of creating this new office in our system, and that is the question *whether the good likely to be accomplished by the measure is sufficient to justify the expenditure which it would require.*

The amount of expenditure for this purpose need not, for the present certainly, much exceed

that of the salary of the inspector, and the probability is that it would not be necessary to provide a salary greater than that of the chiefs of the departments of music and drawing. In considering whether such an expense would be justifiable, for the kind of service which has just been described, we naturally turn our attention chiefly to the magnitude and importance of the interests involved.

After carefully looking into the matter from this point of view, would any reasonable person deny, that a competent medical man, devoted to such lines of work as have been above indicated, might greatly promote the well-being of the fifty thousand children in our schools; that he might prevent many cases of sickness and death among them, and raise the standard of their health and physical development; that he might, by improving the sanitary condition of the schools, materially increase the effective working power, not only of the mass of the pupils, but also of their twelve hundred teachers, and thus increase the utilization of the two millions of dollars annually expended for school purposes?

But it does not seem necessary for me to discuss this plan here at any length; and I shall therefore content myself with the expression of my approval of it.

Hitherto we have directed our attention too exclusively to the intellectual education. The tasks of the brain have been greatly increased, without a corresponding increase of care for the preservation of health. This is the great defect of American education; it is fitting that Boston, the cradle of the great

system of free popular education, should take the lead in showing how this defect can be remedied. Henceforth, let both body and mind receive their due share of attention.

EXAMINATION OF SCHOOLS.

In considering this subject, it seems desirable to define, at the outset, what is meant by an *examination* of schools as distinguished from what is meant by an *inspection* of schools.

An inspection is a visitation for the purpose of observation, of oversight, of superintendence. Its aim is to discover to a greater or less extent the tone and spirit of the school, the conduct and application of the pupils, the management and methods of the teacher, and the fitness and condition of the premises. Good inspection commends excellences, gently indicates faults, defects and errors, and suggests improvements as occasion requires. By the expectation of visits of inspection, of the right sort, teachers are stimulated to fidelity, and to efforts for advancement in efficiency. While inspection has for its object in some measure to stimulate, encourage and guide both teachers and pupils, this is not the limit of its scope. It has another important purpose, namely, that of enabling the inspector to acquire valuable information as a basis for action in the administration of the system. But inspection does not undertake to apply tests to teachers or pupils, to be followed by serious sanctions. Its object is general rather than special. It is best that inspections should be made without previous

notice, and that they should be made by competent and experienced experts; but inspection by intelligent and judicious non-experts may be highly beneficial. The principals of schools should frequently inspect the classes for which they are responsible; the superintendent should, as often as practicable, inspect all the schools under his charge; and, of course, inspection is one of the duties of school committees.

An examination is different from an inspection both in its aims and methods. An examination is a thorough scrutiny and investigation, in regard to certain definitely determined matters, for a specific purpose. It should proceed according to a prearranged scheme, and it should not omit any element in the scheme. It seeks positive evidence and exact information in regard to all the matters comprised within its scope. Nor is this all. An examination not only implies the acquisition of facts within a prescribed sphere, but it also implies a weighing and considering of those facts, and the making up of a judgment upon them. The object of the examination is to arrive at a just estimate of merit, or attainments, or progress. This judgment or estimate, then, constitutes the essence of examination, for it is the basis of awards which are of the highest importance to both teachers and pupils.

In proceeding with the analysis of the subject, it is necessary to note the different kinds of examinations. All examinations affect, more or less, both teachers and pupils; but considered with reference to the chief objects to be accomplished, examinations of schools and classes are of the three following kinds: —

Examination of classes, to ascertain their progress and to determine the rank of the pupils composing the class.

Examination of pupils, for promotion, for graduation, and for distinctions or honors.

Examination of schools and classes, with reference mainly to the merit and standing of the teachers.

As the objects of these examinations differ, so must their methods differ, and they must be conducted by different classes of examiners. The general principle as to the qualifications of the examiner is that he should be competent and disinterested as to the result. He should know what facts to seek; he should know the best way of discovering them; he should be capable of estimating them at their true value; and, above all, he should have no relation of interest or feeling to warp his judgment.

I proceed to consider the three kinds of examinations in the order above named: —

I. The examination of pupils, to test their progress or to determine their rank, which I call class examination, has been of late quite extensively adopted, and it is apparently gaining ground. This examination is of course to be conducted by the class teacher, but under the supervision of the principal. If the examination is to be merely a test of progress, it may be, and indeed should be, both written and oral; but if it is to determine rank, it becomes essentially a competitive examination, and must therefore be conducted in writing, except in branches to which this method is inapplicable; otherwise all the pupils are not subjected to the same test. It is obvious that an

examination for the purpose of ranking should comprise all the branches taught. And here the difficult thing to do is to assign to the result in each branch its just relative value, that is, to determine what shall be the maximum mark, or number for each branch. Perhaps the best criterion for determining this matter is the relative amount of time devoted to the respective branches. The class examination seems to have been introduced as a remedy for the evils of the marking system. But in some cases has not this class examination become an evil as great as that it was intended to remedy? When pushed to excess the examining and marking of papers by teachers becomes an intolerable burden, and the pupils waste their time in giving proofs of their ignorance. The better plan would seem to be to combine judiciously the system of lesson-marking with the system of examining for rank, pushing neither to an extreme. But I am inclined to think that the marks for conduct should in no case be combined with the marks for scholarship, in determining the rank of pupils, or in determining their promotion, unless promotion is based on a competitive examination, and in a particular case the scholarship marks of two competitors are equal, but their conduct marks unequal. For conduct marks and scholarship marks are not commensurable qualities any more than yards and pounds.

II. Examination of pupils for promotion, for graduation, and for distinctions or honors.

1. Examination for promotion. This examination should be conducted by the principal, under general regulations and supervision. To take this authority

from the principal is to deprive him of one of his most important functions. There are three systems of promotion possible.

(*a.*) Promotion of the class *en masse*, or by seniority, without a serious test examination. By this system the teacher is deprived of one of the most powerful motives for securing vigorous exertion on the part of the pupils, and every class is subjected to the drag of a considerable number of hopeless idlers and laggards. Besides, the great difference between the head and foot of the class soon becomes too great for the common good.

(*b.*) The system of individual promotion by capacity. By this system the best in each class are promoted at any time when there is room in the class above. This amounts to promotion by competitive examination. This system affords bright scholars a chance to complete the course in the shortest possible time. But the objections to it when used exclusively are very grave. Its effect is to over-stimulate and overwork precocious pupils, and especially girls; it discourages pupils of slow intellect, and utterly demoralizes the idle and unambitious, who are left stranded in the lower classes, where they get little benefit and do much mischief. In schools conducted on this principle, frequently the average age of the pupils in an upper class will be much less than that of the pupils in the lower class. Where this system has been rigorously enforced it has been found necessary to limit the age above which pupils are not allowed in the different classes, notably, in some of the "Great Public Schools" of England.

(*c.*) The two systems above named combined. By this mixed system, while the identity of the class is preserved, as far as practicable, by simultaneous promotions, every member is subjected to a serious examination as a test of fitness for advancement. The results of this examination combined with the lesson-marks determine the promotions, those pupils only who fall below a reasonable minimum being obliged to repeat the course of the class. To perfect this system the principal must, as occasion requires, exercise the prerogative of allowing exceptionally able pupils to "jump" a class, and of degrading those who are exceptionally delinquent. That is, he must make some individual promotions. The class examination above referred to will give seasonable intimations to the pupils of their probable standing at the examination of passage, and thus afford them an opportunity to recover lost ground. By this system, which seems to me the best, while an examination is required, it is not a competitive examination, but what the English call a pass examination, where only a minimum result is requisite for passing. Hence, the examination may be either written or oral, or both. In all examinations which are not competitive it is desirable that both written and oral tests should be applied; for some pupils are strong on paper and weak in speech, and others are weak on paper but strong in speech, and the examination should afford each an opportunity to show his real ability; since, in an examination for promotion, the point aimed at, is not to know whether the pupil can answer on all the details of the matters taught, but whether he is capa-

ble of taking the higher stage, with profit to himself and without detriment to the class.

The examination for transfer from one grade of schools to another, that is, from the Primary to the Grammar, and from the Grammar to the High, ought to be conducted on the same principles as that for the passage from a lower class to a higher in the same grade of schools. But here the control of the examination should be in the hands of an authority independent of the grade from which the transfer is made, and also independent of the grade to which the transfer is made. But the principals of both these grades should be called in as advisory assistants. Of the principal from which the transfer is made, the candidate's record should be required, and a certificate of probable fitness. From the principal of the grade to which the transfer is to be made, advice should be had and considered as to the minimum of requirement allowable for admission; that is, as to the character of the questions and the minimum mark for passing.

2. Examination for graduation. Here the principal should co-operate so far as to furnish the list of all the pupils entitled to be candidates, the scholarship marks of each, and his opinion of their maturity. But the actual examination ought to be under the control and management of the superintending authority, because, in a system of schools, it is desirable that all the diplomas of the same grade should have a uniform value, and this could not be the case if each principal should make his own standard. As a matter quite of course the result of the examina-

tion should be combined with the record of scholarship. And it is desirable that the examination should be both oral and written. It is essential that the examination should cover all the subjects of the programme of the graduating class, but not all the topics; nor should it go back to the matters of the preceding class, as they have already been satisfactorily passed. And in all sound educational economy some privilege of oblivion must be permitted to students. Nothing is more to be deprecated in the matter of test examinations than to demand of the examinees readiness in all they have ever studied. Examination for graduation, as in the case of examination for promotion, should never be competitive, only a certain minimum of qualification being demanded. The level of this minimum must of course be raised as high as the best good of all requires. The graduating examination should be in accord with the programme, that is, it should conform to the programme both in respect to spirit and scope. The ranking of graduates according to their marks renders the examination in effect competitive. This is practised to some extent in western cities in connection with High-School graduation. Its effect on girls, according to my observation, is decidedly injurious.

It is well known that school authorities sometimes fix in advance the percentage of marks requisite for promotion or graduation. Is not this highly unpedagogical? Of what avail is it to fix the minimum percentage before you know the character of the questions or the degree of strictness in marking?

3. Under the second class of examinations there is

only one more variety to consider, namely, the examination for distinctions or honors. From the nature of the case this must be a competitive examination; and one of the essential things in a competitive examination is that the conditions be made known before the race begins. So from the outset of the preparation the competitors should be informed definitely as to the nature of the ordeal, — namely, on what subjects they are to be examined, whether the sum of the class marks is to be the criterion, or whether the examinations alone are to be considered, or whether class marks and examination marks are to be combined, and in what proportion. This examination should be conducted by the teachers of the competitors, as they alone know with accuracy what has been taught, but under the supervision of an impartial umpire. And it should be conducted in writing so far as this method is applicable.

III. Examination of schools in classes, with reference mainly to the merit and standing of the teachers. Although the chief object of this examination is to ascertain the merit and standing of the teacher, it has other objects of higher importance, among which are, to stimulate teachers to efforts to keep up and increase their efficiency; to see that all the subjects of the programme are taught in due proportion, and kept abreast of each other; and to serve as a guide to the teacher, both as to methods and as to the interpretation of the requirements of the programme. This examination should be so conducted as to discover and appreciate merit, to encourage sound teaching,— teaching that trains and educates; teaching that

is solid rather than showy; teaching that aims at the highest good of the pupils, morally and physically, as well as intellectually. It is its purpose also to detect incompetency and unfaithfulness. In a word, its office is to give a just and true report of the teacher's work, and at the same time incidentally to afford the teacher, as far as possible, stimulation, encouragement, and guidance. Without the judicious examination of schools by well-qualified experts, there can be no adequate guaranty of the faithful and efficient performance of their duties on the part of teachers. I say *judicious* examinations, for if schools are not wisely examined, — examined as only persons of thorough pedagogical knowledge, ripe experience, and sound judgment can perform this service, — it is as well, perhaps, to leave them without it altogether. But an examination so conducted as to encourage true merit, to promote the use of the best methods, to regulate in the best manner possible the instruction imparted, both in respect to quantity and quality, — it is by such examinations, if at all, that will be hastened the dawning of that day when there will be no cramming, no high pressure, no idleness, no excess, no deficiency, and no wasting of time or strength on the part of teachers or pupils.

The objects and character of this examination suggest the requisite qualifications of the examiner. In the first place, he should be independent, or, to speak more precisely, he should not be dependent upon the teaching corps. He ought to have had experience in teaching, and if he has had experience in grades similar to those in which he examines, so much the bet-

ter. His mind ought to be liberalized by a wide range of educational reading and study. He ought to have a good deal of practical common-sense. He should be more inclined to look on the bright side of things than on the dark side. He should look sharper for merits than for demerits. He should fear only two things: he should fear to do injustice, and he should fear himself. He should be eminent for good-breeding, as a guaranty of respectful treatment of teachers and pupils. And to make sure of the requisite sympathy, like Burke's lawgiver, "he ought to have a heart full of sensibility." In a word, for the successful exercise of this delicate and most useful function the very best educators are demanded. This function is next in importance and in point of difficulty to that of the chief supervision, which overlooks the whole economy of the system.

Without this instrumentality no system can be complete. And so, instead of saying nobody is equal to such a work, and therefore it must be dispensed with, we should rather "get the best," and trust to the law of supply and demand to furnish ultimately the requisite combination of rare qualities for the most satisfactory performance of this duty.

As to the method and plan of proceeding something must be said, but my limits will not permit details. In the first place, this examination should be made by the examiner in person, and not by sending a set of questions to be answered. I am aware that the plan of testing the work of teachers by a simultaneous, uniform examination of all grades by printed questions is somewhat in vogue in some places. But

I regard this plan as very objectionable. It is impossible to do justice by this plan. If this is so, no other objection to it need be raised. But even if it were possible to apply it without doing great injustice, it would do more harm than good.

Before the examiner begins his examining visits he should be prepared with a carefully matured scheme, set out in a blank or blanks, covering all the subjects of instruction, and all the other matters to be taken into the account in estimating the merit of the teaching, discipline and management of the class or school. The examination then consists in such observations and inquiries as may be needed to enable the examiner to fill his blanks on the spot, that is, to make up his judgment in detail and in general. Of course it would not be necessary to examine each pupil in every branch. In some branches it would be sufficient to witness the exercises as conducted by the teacher. This examination should be neither exclusively oral nor exclusively written, but a mixture of both methods. Printed questions are unnecessary. In elementary grades the responsibility of conducting the examination of a given class or school should be in the hands of one examiner. In the higher grades of institutions of instruction, where it becomes necessary to introduce departmental teaching, the work of examining may, with advantage, be divided in a manner corresponding to the usual division of studies into groups.

I have now outlined all the different kinds of examinations which seem to me required in a well-organized and well-managed system of public schools.

It belongs, of course, to the School Board to make the necessary provisions for these examinations. The particular deficiency in the Boston system, with respect to examiners, which has been often pointed out by me, has consisted in the absence of any adequate provision for that description of examinations which I have considered under the third head. I suppose the present Board intended to make provision for remedying this deficiency in section 138 of the regulations, which is as follows: — "The Supervisors shall visit and examine the schools in detail twice in each year, before the fifteenth of June and January. The results of these examinations shall be recorded in suitable books, kept in the Supervisors' office, and open only to the inspection of members of the Board." My opinion in general respecting the plan of the Supervisors for carrying out this provision has been submitted to the Board.

Good teachers, who know what is best to be taught, and how to teach it, have a right to be examined by competent examiners, that they may have proof of the excellence of their work. Teachers of a different character, who have an imperfect knowledge as to what ought to be taught, and a limited acquaintance with the best methods of teaching, and possess little professional ambition, *need* frequent, judicious examinations and inspections, to instruct them in their duties, and to stimulate them to exertion.

A portion of our teachers — a very considerable portion, I trust — are now imparting a high style of instruction. But they need more sympathy and encouragement in this kind of teaching. This can be

given them most effectually by a right management of the examinations of their schools. Examinations may be the occasion of much good or much evil. The proper objects and uses of examinations is a subject which demands the serious attention of every one who is called to participate in the supervision of educational institutions. It is obvious that the utility of examinations depends wholly upon the plan upon which they are based, and the manner in which they are conducted. It sometimes happens that a man quite unaccustomed to the ways of the school-room, but possessed of good sense and right feelings, will make an examination very profitable to both teacher and pupils. On the other hand, a person of equal, or superior intelligence, and actuated by the best of motives, may, from inattention to the principles which should guide his proceedings, produce the opposite effect. Teachers and pupils are depressed and disheartened, instead of being stimulated and encouraged. They have faithfully tried to do a good work, — they *know* they have done it. But this is overlooked or under-estimated, and they are admonished, gently it may be, for not doing something else which they could not do, or which they did not know would be required of them.

The examiner should always remember that he is to a large extent shaping the subsequent teaching as well as ascertaining the preceding. Teachers are ever strongly tempted, even against their better judgment, to make their teaching conform to the kind of examination expected. They cannot be blamed for adopting such a course. Indeed, they

might, with greater reason, be blamed for not doing so, since the primary responsibility is with the committee, who themselves examine or appoint the examiners, are the legal trustees of all the interests of the schools under their charge, and it is within their province to determine what description of instruction shall be given. Teachers are, with reason, expected to give satisfaction to their employers and supervisors. Examinations are held to determine how far this end has been attained. But they do more. They virtually indicate what the examiner thinks the pupil ought to know, as well as reveal what he does know. It is important that examiners should keep this fact in view, and conduct their examinations accordingly. If the examiner comes into the school every quarter, or every month, only to be entertained by exercises in some favorite branch, conducted in some favorite style, the teacher will soon find it convenient, if not necessary, to be prepared for such a course.

But examination should be conducted not merely with reference to discovering what the pupil knows and to pointing out what he should know. It should go farther and look to higher results. It should seek to find out what the pupil *is* and what he can *do;* or, in other words, to see what *discipline* of mind and heart and body he has had. It is true, this kind of examination is difficult, and few are qualified for it; but it is necessary as a means of securing the highest style of teaching. We must not, however, fall into the error of supposing that its results can be adequately expressed by percentages. Let our examinations be extended into this higher sphere of

education, and many teachers will be glad to occupy themselves with it to a greater extent than they have been accustomed to. But then it must be borne in mind that the teacher cannot prepare his pupils for everything in a limited period of time. There must be a choice of subjects in the general scheme; and there must be a choice of topics and methods in each particular branch. The greatest injustice is often done by an unfair comparison of schools in some *one branch* only. A particular school may be immensely superior to another in one branch, and yet be, on the whole, immensely inferior to it. And so with systems of schools.

If a teacher, in obedience to direct or indirect instructions, or in the absence of all instructions, has adopted a certain course, and has prepared his pupils for one sort of an examination, he ought not to be censured for their failure when put to a totally different test, which he could not have anticipated.

Before a teacher is censured for any supposed deficiency, he should be permitted to show what he has attempted and what he has done, and to give his reasons for his course. For instance, the examiner finds that the pupils of a certain school can recite the text of the books glibly enough, but that their reasoning faculty has not been duly exercised and trained, and that, as soon as they are taken out of the routine of question and answer, they are bewildered and cannot proceed. He is dissatisfied, and suggests that the pupils should be taught to think, to reason, to investigate, to understand; that they should learn things as well as words. But, on inquiry, he might,

perhaps, find that his predecessor, a year before, was displeased for precisely the opposite reason, and strongly insisted upon the verbatim recitation of the words of the text-books.

Examiners ought to avoid extreme notions on the subject of education. The good teacher, who is master of his art, if left sufficiently free, will give to each branch and each department of education its proper share of attention, — neglecting none, making a hobby of none. And such should be the aim of the examiner, if he would make his examinations profitable.

And, finally, in examinations, the teacher's individuality should be duly respected. I do not mean here by individuality a peculiarity of opinion or theory which takes the liberty to oppose openly or quietly ignore the plain requirements of the regulations respecting the management of the school or the studies to be taught. Nor do I mean that oddity, capriciousness, whimsicality, or eccentricity should claim indulgence, under the more respectable designation of individuality. Nor would I allow incompetency to escape its just criticism and its just estimate on the plea of the rights of individuality. But what I mean is, that it should not be insisted on that each teacher should do everything in the same way and at the same time; and that teachers should be allowed to make their own plans and pursue their own methods so far as is consistent with the interests of the whole system, provided that the desired results are produced.

THE BOSTON SCHOOLS AT THE VIENNA EXHIBITION.

Although it is three years since the exhibition was held, the reports on its different departments by the United States Commissioners appointed for the purpose have only just now been issued by the Secretary of State. The able report on the Educational Group was drawn up by John W. Hoyt, LL. D., of Wisconsin, to whom was accorded the high honor of the presidency of the jury for the group. This report contains a statement of the character of the Boston exhibit; and, considering the authority from which it comes, it seems proper that it should be laid before the Board as an appropriate supplement to my brief report on the subject. After describing the location of the American Educational Exhibit in the Industrial Palace, and stating that the space which it occupied was divided into four courts, the account proceeds as follows: —

"The northeastern of these courts was wholly occupied by the State of Massachusetts and the City of Boston. In fact, it was called 'Boston,' for the State's exhibition was confined to one valuable case; and, suspended over all, in the most conspicuous place, was displayed a rich and beautiful silk banner, bearing a representation of the city's 'coat of arms.' Briefly mentioned, the Boston contributions consisted of reports of the Board and Superintendent of the city schools; complete sets of text-books used in the Primary, Grammar and High Schools, 118 volumes, in neat walnut cases; books of reference used in the Grammar Schools, 103 volumes, including Appleton's New American Cyclopædia; a full set of physical apparatus used in all the schools, 65 pieces; a variety of independent pieces of apparatus; models for drawing; terrestrial and celestial globes; a set of Mason's music charts; a handsome statistical chart showing the status of all the educa-

tional institutions and organizations of the city; a great variety of wall-maps (including a full set of Guyot's), tablets, etc.; a dozen pieces of school furniture; portfolios of photographic views of Boston school buildings; and a handsome display of class-work of pupils, including many bound volumes and portfolios of drawings, music and miscellaneous work, and 300 primary slates taken from the schools, and faithfully illustrating the proficiency of their pupils.

"All in all, this exhibition was extremely interesting, unique and valuable. It was universally regarded by members of the jury, as well as by educational visitors in general, as the most complete and satisfactory representation made in this group by any one city. It certainly reflected much honor upon the efficient superintendent and honorary commissioner, Dr. J. D. Philbrick, who was at once the moving spirit and executing hand in the whole matter, and fairly entitled the City of Boston to the very handsome recognition, in the form of the GRAND DIPLOMA OF HONOR, which it received on the *unanimous* recommendation of the International Jury."

Only three other cities received the Grand Diploma, namely, Vienna, Berlin, and Paris.

COURSES OF STUDY.

The courses of study provided for our Grammar and Primary Schools are believed to be in the main sound and judicious, and in accord with the views of the best authorities on such matters; as it is however some twelve years since that of the Primary Schools, and eight since that of the Grammar Schools was adopted, some modification may now be found desirable, and therefore the Board has very properly directed the Board of Supervisors to take the matter into consideration, and report thereon.

There is one modification, in regard to the desirableness of which I am well satisfied. I mean the addition of a provision fixing the *time per week* to be devoted to

the departments or branches of instruction. The time for music, drawing, and physical exercises has been already determined, and whatever necessity there might have been, when these branches were first introduced, for fixing the time to be given to them, while the time to be given to the other branches was left to the diverse judgments of the individual teachers, it seems clear that no such necessity now exists. The time per week to be devoted to each branch taught being fixed, it may well be left to the teachers to frame their daily programmes and time-tables, with perhaps some slight restrictions, according to their own preferences. It is believed that this provision, instead of hampering and cramping the teachers in the discharge of their duties, would be of real assistance to them, and relieve them from an embarrassing uncertainty as to the proper apportionment of the school time.

SCHOOL SESSIONS.

Our Primary and Grammar Schools have ten sessions a week, namely, six forenoon sessions and four afternoon sessions, no session being held on the afternoons of Wednesday and Saturday. This has been the custom for very many years, and it is a custom which has certain advantages. The break in work in the middle of the week affords relief to both teachers and pupils, which is no doubt beneficial. In years past I have not been quite willing to see this arrangement changed. Nor am I now thoroughly convinced of the expediency of a change. But a change of circumstances has taken place which seems

to render it desirable to take this matter into careful consideration. Authority and example have all along been against our custom. So far as I know, city schools outside of Boston have no Saturday session, but they have two sessions on each of the other secular days of the week. But, in addition to this fact, there are now three new considerations which weigh in favor of abolishing the Saturday session: —

1. It has been abolished, as far as the High Schools are concerned.

2. It would remove all difficulties in regard to the attendance of Jewish children.

3. It would leave the whole of one day free for teachers who are improving their qualifications for their duties by attending special courses of professional instruction, such as those referred to in speaking of the Normal School.

THE SUPERINTENDENCY.

The office of Superintendent of Schools was created in 1851, after prolonged and strenuous opposition to the measure by extreme conservatives. But if its opponents did not succeed in preventing the creation of the office, they did succeed in preventing it from being established on the proper basis. Its existence was made to depend upon the pleasure of the City Council instead of being fixed by law. Its salary, too, was at the mercy of the City Council, instead of being in the control of the School Committee, as was the salary of the teachers. And not unfrequently members of the City Council would threaten to abolish the office, or to cut down the salary, when-

ever the action of the Superintendent did not suit their notions of school management. The tenure of the office by annual election greatly weakened its influence, lowered its dignity, and crippled its efficiency; and, to cripple it still more, frequent attempts were made to require more than a majority of votes for an election. The regulations prescribing the duties of the office seemed to be designed to prevent the incumbent from doing harm, rather than to invest him with power to do good. Consequently, during all the period of my service I labored under the greatest disadvantages in my efforts to correct abuses and to introduce improvements. The act of 1875, providing for the reorganization of the Board, has, to some extent, remedied the defects of the office, by relieving it from the control of the City Council, and by making the election both obligatory and biennial. But in order to render the office what it should be, as an instrumentality for promoting the best interests of the school system, some important modifications in the new regulations seem to me necessary. It is not desirable, perhaps, that I should express here my views in detail on this subject. But the general idea which I would present is, that the Superintendent should be invested with the requisite power and authority to render him in reality *the responsible head and chief executive officer of the system.*

THE REPUTATION OF OUR SCHOOLS.

I am a sincere admirer of Cromwell's saying, "Paint me as I am." It means, tell the truth; don't flatter; don't decry; don't exaggerate;

> "Nothing extenuate,
> Nor set down aught in malice."

I would commend these wholesome maxims to all future writers of anonymous communications to the newspapers about our schools, whether they be well-meaning, but not well-informed, friends of popular education, or whether they be enemies of the cause, masked under the pretext of friendly concern.

Our school system has lately passed through a trying ordeal. A reform in the *School Board* was needed. It was too large, and the mode of its election was bad. In order to bring about this needed reform, it was necessary to dwell upon the evils and shortcomings of the management, and set them in a strong light. From reading and hearing these criticisms, a stranger would naturally infer that the schools were about the worst in the world. On visiting the schools he would be puzzled to account for the criticisms. The truth is, that improvements had been constantly going on for many years, and that deterioration had only just begun to set in. It is perhaps still nearer the truth to say that a "new departure" was demanded, because under the old organization no further progress was possible; it had exhausted its capability for good; it had touched the limit of its usefulness. When it was clear that it

would not allow proper provision to be made for the examination of teachers and schools, the want of which was the chief defect of the system, it was evident that a change must be made.

What was said in the interest of this reform tended to give our schools a home reputation quite contrary to their real character. Some of our citizens began to think things were radically wrong in the schools themselves, and that they must be radically changed. I can tell them that the schools, such as they are, have been a gradual growth of centuries; that no one man, or one body of men, has made them what they are; that they are, and always will be, in a democratic community, the result of a compromise between conflicting opinions; that they represent the average opinion of the controlling sentiment of the community on the subject of popular education. There are a few citizens in this community who seem to hate the schools, because, in their opinion, they educate the mass of the pupils too much. There are others who utter complaints because the pupils leave school knowing so little; and again others who think they ought to learn matters different from those now taught. While all these classes, with those holding still other notions, *ad infinitum*, have their legitimate influence in shaping the character of the schools, no one of them has now, or can ever get, the exclusive control of them.

In the mean time the people — well-to-do people, people who are able to pay for the best private tuition — continue to send their children to our public

schools, to an extent unparalleled by any other large city.

In our school reports one will look in vain for any undue estimate of the merits of our schools. The writers of these reports have been content, for the most part, to set forth the facts as they are, without indulging in eulogistic periods. Acting in obedience to the injunction, "Let another praise thee," they have been content to abide by the verdict of disinterested and intelligent outsiders. They have rarely, if ever, lifted a finger to correct the gross misstatements of facts and absurdly wrong inferences in regard to the system so often made, or to reply to unjust criticisms.

In my last report, in referring to foreign criticisms of our schools, that the people might know how our education is regarded, I quoted the exceptionally commendatory remarks on the Boston system by the Rev. Dr. Rigg, a member of the London School Board, contained in an elaborate essay of that eminent dissenting divine to prove the general worthlessness of American popular education. Since that time a very able book, on the "Free Schools of the United States," has been written by Francis Adams, of Birmingham, England, Secretary of the National Educational League, an organization for promoting the most liberal provisions for the education of the people. This is the best account of the American system of public schools yet written, as has been abundantly attested by the leading educational men in this country. Mr. Adams, having presented a most interesting and instructive comparison of the

school statistics of the leading cities of the country, which I should be glad to find room for here, says of our system: —

"The schools of Boston have long been famous not only in America, but throughout the world. There are signs that the supremacy of this city in educational matters is to be disputed by some of the Western cities; but for the present, at any rate, it is entitled to the first place."

It will certainly be greatly to our discredit if we do not, at least, maintain our present rank, in spite of all competition.

It is but just, it seems to me, that I should record in this connection the action of the "Special Japanese Commission" in respect to our system.

Four years ago Fujimaro Tanaka, in the capacity of Commissioner of Education from Japan, visited our schools, and subsequently made a thorough survey of the leading European systems of education, the result of which he embodied in an elaborate report. On his return home he was made Minister of Education; and this year he was sent as a Special Commissioner of Education to the Centennial Exhibition at Philadelphia. While in this country he visited the schools of the principal cities, and extended his observations into Canada, as Canada had made a noble educational exhibit at the Centennial. Boston was one of the last cities visited by him. He came accompanied by several assistants. After spending several days inspecting the different grades

of schools, going to some in the most unpromising localities, as well as to the best, he announced to me that he had selected our system for the purpose of making collective exhibit of it in the imperial city of Tokio. In carrying out this plan, he purchased while here school materials to the value of about $10,000. And the City Architect is at the present time preparing for him plans of two of our best school-houses, one Primary and one Grammar, for reproduction as a part of the exhibit.

DUTIES PERFORMED.

In compliance with the requirements of the Regulations, I submit the following brief account of the duties I have performed.

My time has been wholly devoted to the work of my office, in accordance with the requirements of the Regulations. The want of clerical help has been a serious drawback. I have visited the schools, when my other duties would permit, in order to obtain, as far as practicable, a personal knowledge of their condition. Considerable time has been occupied in attending meetings of the Board of Supervisors, especially with reference to the examination of teachers. Monthly meetings of the Principals have been conducted by me. The educational studies required by Section 116 have been assiduously pursued. Section 123, relating to the hour of keeping my office open, has not been complied with, as no "attendant" has been furnished. My regular office-hour is from 12.30 to 1.30, but this is by no means the limit of the time I find it necessary to be present.

VISIT TO WESTERN CITIES.

The Board having unanimously granted me leave of absence for the purpose of visiting schools in the principal cities of the West, I set out on the trip on the 28th of May, and visited Pittsburg, Cincinnati, Louisville, St. Louis, Chicago, Cleveland and New York. Although the time occupied by this trip was only a little over two weeks, by travelling mostly by night, and by the courteous assistance of the Superintendents in the cities visited, I was enabled to visit a great number of schools of all grades, from the Kindergartens to the High Schools. Blanks, forms, and printed documents of every description employed in connection with the administration of the school systems of those cities were collected. I had intended to embody my account of the trip in this report, but rather than swell it to a greater size, I deem it best to issue a separate report on the subject, in accordance with the vote of the Board granting me leave to report in print.

PERSONAL.

Again I find myself in the same office, but in a new situation. The continuity has been broken, and circumstances have changed. During eighteen months the office of Superintendent was vacant. It is now two years since I last spoke officially of the Boston Public Schools. I little anticipated that within a twelvemonth from the date of my resignation I should find myself, with restored health, taking an active part in securing, *through legislative*

enactment, the needed reform of the old system of management, or that I should be elected my own successor, under a new organization of the Board.

If these occurrences afford me some degree of satisfaction, it is chiefly because I hope they may be beneficial to the cause of education. My aim is, and will be, as it has been, to think, and say, and do the best things for the promotion of this Boston School system, and not to content myself with merely helping to carry on the schools as they are, but to work *for* solid improvements and *against* harmful innovations.

Respectfully submitted,

JOHN D. PHILBRICK,
Superintendent.

Issued December, 1876.

STATISTICS

ACCOMPANYING THE REPORT OF THE SUPERINTENDENT OF SCHOOLS,
FOR THE YEAR ENDING

JULY 31, 1876.

STATISTICS OF THE SCHOOLS.

Tables showing the number of teachers of each sex, in the different grades of schools, July 31, 1876.

REGULAR TEACHERS.

Schools.	Males.	Females.	Total.
Normal School	1	2	3
Latin School	13	....	13
English High School	18	....	18
Girls' High School	1	26	22
Roxbury High School	1	7	8
Dorchester High School	1	4	5
Charlestown High School	3	5	8
West Roxbury High School	2	2	4
Brighton High School	1	2	3
Grammar Schools	87	493	580
Primary Schools	....	423	423
Licensed Minors' School	....	2	2
Deaf-Mute School	....	8	8
Evening Drawing-Schools	16	....	16
Evening Schools	36	106	142
Kindergarten School	....	1	1
Totals	180	1,075	1,256

SPECIAL TEACHERS.

Schools.	Males.	Females.	Total.
Vocal and Physical Culture: High Schools	1	....	1
Military Drill: High Schools	1	....	1
Drawing: High and Grammar Schools	5	2	7
French: High Schools	5	....	5
German: High Schools	3	....	3
Music: High, Grammar and Primary	6	1	7
Sewing: Grammar Schools	....	26	26
Totals	21	29	50

HIGH SCHOOLS.

Abstract of Semi-Annual Returns, January 31, 1876.

Schools.	Average whole Number.			Average Attendance.			Average Absence.	Per cent. of Attendance.	Head Masters.	Masters.	Sub-Masters.	Ushers.	Masters' Asst's.	H. Assistants.	Assistants.
	Boys.	Girls.	Total.	Boys.	Girls.	Total.									
Normal	. . .	72	72	. .	70	70	2	96.2	1	.	.	.	.	1	1
Latin	352	. . .	352	332	. .	332	20	94.3	.	4	2	5	.	.	.
English High	535	. . .	535	524	. .	524	11	97.2	1	5	13	.	.	.	.
Girls' High	. . .	599	599	. .	566	566	33	94.4	1	.	.	.	2	4	15
Roxbury High	102	96	198	100	94	194	4	97.9	1	.	.	.	1	1	5
Dorchester High	59	80	139	58	74	132	7	95.1	1	.	.	.	.	1	3
Charlestown High	96	116	212	94	111	205	7	96.7	1	1	1	.	.	2	3
West Roxbury High	19	57	76	18	56	74	2	97.1	1	.	.	.	.	1	2
Brighton High	34	22	56	33	21	54	2	94.8	1	.	.	.	.	.	2
Totals	1197	1042	2239	1159	992	2151	88	96.1	8	10	16	5	3	10	31

HIGH SCHOOLS.

Abstract of Semi-Annual Returns, July 31, 1876.

Schools.	Average whole Number.			Average Attendance.			Average Absence.	Per cent. of Attendance.	Head Masters.	Masters.	Sub-Masters.	Ushers.	Masters' Asst's.	H. Assistants.	Assistants.
	Boys.	Girls.	Total.	Boys.	Girls.	Total.									
Normal	. . .	69	69	. .	66	66	3	96.	1	.	.	.	1	.	1
Latin	355	. . .	355	328	. .	328	27	92.	1	5	2	5	.	.	.
English High	483	. . .	483	462	. .	462	21	95.	1	5	12	.	.	.	.
Girls' High	. . .	569	569	. .	522	522	47	92.	1	.	.	.	2	4	15
Roxbury High	91	82	173	87	78	165	8	95.	1	.	.	.	1	1	5
Dorchester High	57	76	133	53	69	122	11	92.	1	.	.	.	1	.	3
Charlestown High	93	106	199	90	99	189	10	95.	1	1	1	.	.	2	3
West Roxbury High	19	56	75	18	54	72	3	95.	1	.	1	.	.	.	2
Brighton High	32	18	50	30	16	46	4	92.	1	.	.	.	.	1	1
Totals	1130	976	2106	1068	904	1972	134	94.	9	11	16	5	5	8	30

GRAMMAR SCHOOLS.

Abstract of Semi-Annual Returns, January 31, 1876.

Schools.	Average whole Number.			Average Attendance.			Average Absence.	Per cent. of Attendance.	Masters.	Sub-Masters.	Ushers.	Masters' Ass'ts.	H. Assistants.	Assistants.	Sew'g Teach'rs.
	Boys.	Girls.	Total.	Boys.	Girls.	Total.									
Adams	350	138	488	330	131	461	27	94.3	1	1	.	1	3	5	.
Andrew	314	111	425	295	101	396	29	93.2	1	1	.	1	2	6	1
Bennett	143	129	272	133	120	253	19	93.0	1	.	.	.	1	5	.
Bigelow	709	. . .	709	677	. . .	677	32	95.3	1	1	1	1	1	10	.
Bowditch	. . .	343	343	. . .	326	326	17	95.0	1	.	.	1	2	6	.
Bowdoin	. . .	421	421	. . .	389	389	32	92.3	1	.	.	1	2	6	.
Brimmer	568	. . .	568	535	. . .	535	33	94.2	1	1	1	1	1	8	.
Bunker Hill	294	297	591	284	284	568	23	96.1	1	1	.	1	2	9	.
Central	282	. . .	282	269	. . .	269	13	95.2	1	.	.	.	.	6	.
Chapman	259	259	518	250	246	496	22	95.6	1	1	.	1	3	6	.
Comins	346	366	712	334	350	684	28	96.1	1	1	.	2	3	10	.
Dearborn	469	416	885	433	385	818	67	93.1	1	1	.	1	3	13	1
Dudley (*Boys*) . .	416	. . .	416	404	. . .	404	12	97.1	1	1	.	1	1	6	.
Dudley (*Girls*) . .	. . .	307	307	. . .	288	288	19	93.8	*1	.	.	1	1	4	1
Dwight	573	. . .	552	552	. . .	552	21	96.2	1	1	1	1	1	8	.
Eliot	647	. . .	647	608	. . .	608	39	93.8	1	1	1	1	1	11	.
Everett	. . .	660	660	. . .	626	626	34	94.7	1	.	.	1	3	10	1
Everett, Dor. . . .	157	155	312	149	146	295	17	94.6	1	.	.	.	1	6	1
Florence	72	61	133	68	58	126	7	94.6	1	.	.	.	.	3	.
Franklin	. . .	678	678	. . .	630	630	48	92.9	1	.	.	1	3	10	.
Gaston	. . .	403	403	. . .	374	374	29	92.8	1	.	.	1	2	6	1
Gibson	91	84	175	86	77	163	12	93.1	1	.	.	.	1	2	.
Hancock	. . .	531	531	. . .	510	510	21	96.0	1	.	.	1	4	8	1
Harris	104	110	214	100	103	203	11	94.5	1	.	.	.	1	5	1
Harvard, Ch. . . .	304	260	564	291	246	537	27	95.1	1	1	.	1	2	8	.
Harvard, Br. . . .	134	143	277	119	128	247	30	89.1	1	.	.	1	6	5	.

* Female Principal.

GRAMMAR SCHOOLS. — *Continued.*

Schools.	Average whole Number.			Average Attendance.			Average Absence.	Per cent. of Attendance.	Masters.	Sub-Masters.	Ushers.	Masters' Ass'ts.	H. Assistants.	Assistants.	Sew'g Teach'rs.
	Boys.	Girls.	Total.	Boys.	Girls.	Total.									
Hillside	. . .	210	210	. . .	193	193	17	91.9	1	.	.	1	.	5	1
Lawrence	903	. . .	903	874	. . .	874	29	96.8	1	1	2	1	1	13	.
Lewis	284	268	552	273	254	527	25	95.7	1	1	.	1	2	8	1
Lincoln	535	. . .	535	513	. . .	513	22	95.8	1	1	1	1	1	7	.
Lowell	197	180	377	192	175	367	10	96.8	1	1	.	1	1	4	1
Lyman	431	207	638	412	198	610	28	95.5	1	1	.	1	3	8	.
Mather	149	163	312	137	144	281	31	90.0	1	.	.	.	1	6	.
Mayhew	388	. . .	388	363	. . .	363	25	93.6	1	1	1	1	1	6	.
Minot	96	112	208	91	103	194	14	93.2	1	.	.	.	1	4	.
Mt. Vernon	71	62	133	67	58	125	8	93.5	1	.	.	1	.	3	.
Norcross	. . .	631	631	. . .	606	606	25	96.0	1	.	.	1	2	11	1
Phillips	478	. . .	478	448	. . .	448	30	93.4	1	1	1	1	1	8	.
Prescott	330	277	607	315	262	577	30	95.0	1	1	.	1	3	7	.
Prescott, Ch. . . .	222	215	437	216	205	421	16	96.3	1	1	.	1	2	6	.
Quincy	613	. . .	613	585	. . .	585	28	95.4	1	1	1	1	1	9	.
Rice	620	. . .	620	591	. . .	591	29	95.3	1	1	1	1	.	11	.
Sherwin	395	407	802	376	385	761	41	94.8	1	1	.	1	3	13	1
Shurtleff	. . .	704	704	. . .	645	645	59	91.6	1	.	.	1	3	10	1
Stoughton	115	85	200	105	78	183	17	91.5	1	.	.	.	1	4	1
Tileston	36	36	72	34	32	66	6	90.7	.	.	1	.	.	2	.
Warren	293	322	615	283	309	592	23	96.2	1	1	.	1	2	9	.
Wells	. . .	390	390	. . .	371	371	19	91.5	1	.	.	1	2	6	1
Winthrop	. . .	859	859	. . .	782	782	77	91.0	1	.	.	2	3	13	1
Winthrop, Ch. . .	244	237	481	233	223	456	25	94.8	1	1	.	1	4	5	.
Totals	12,632	11,237	23,869	12,025	10,531	22,556	1313	9.44	49	26	12	42	82	361	18

GRAMMAR SCHOOLS.

Abstract of Semi-Annual Returns, July 31, 1876.

Schools.	Average whole Number.			Average Attendance.			Average Absence.	Per cent. of Attendance.	Masters.	Sub-Masters.	Ushers.	Masters' Ass'ts.	H. Assistants.	Assistants.	Sew'g Teach'rs.
	Boys.	Girls.	Total.	Boys.	Girls.	Total.									
Adams	372	143	515	345	132	477	38	93.0	1	1	.	1	3	5	.
Andrew	293	96	389	273	87	360	29	93.0	1	1	.	1	1	7	1
Bennett	139	129	268	127	118	245	23	91.0	1	.	.	.	.	6	.
Bigelow	746	. . .	746	709	. . .	709	37	95.0	1	1	1	1	1	11	.
Bowditch	. . .	355	355	. . .	334	334	21	94.0	1	.	.	1	2	6	1
Bowdoin	. . .	443	443	. . .	402	402	41	91.0	1	.	.	1	2	6	1
Brimmer	623	. . .	623	579	. . .	579	44	93.0	1	1	1	1	2	8	.
Bunker Hill	292	304	596	279	289	568	28	95.0	1	1	.	1	2	9	1
Central	320	. . .	320	302	. . .	302	18	95.0	1	.	.	.	2	4	.
Chapman	275	276	551	261	257	518	33	94.0	1	1	.	1	3	6	1
Comins	370	400	770	350	378	728	42	95.0	1	1	.	2	3	10	1
Dearborn	472	393	865	435	361	796	69	92.0	1	1	.	1	3	13	1
Dudley (*Boys*) . .	428	. . .	428	407	. . .	407	21	95.0	1	1	.	1	1	6	.
Dudley (*Girls*) . .	. . .	307	307	. . .	281	281	26	91.0	*1	.	.	1	1	4	1
Dwight	585	. . .	585	556	. . .	556	29	95.0	1	1	1	1	1	8	.
Eliot.	691	. . .	691	641	. . .	641	50	93.0	1	1	1	1	1	11	.
Everett	. . .	685	685	. . .	644	644	41	94.0	1	.	.	1	3	10	1
Everett, Dor. . . .	158	169	327	149	156	305	22	94.0	1	.	.	.	1	6	1
Florence	68	57	125	62	53	115	10	92.0	1	.	.	.	.	3	1
Franklin	. . .	689	689	. . .	639	639	50	93.0	1	.	.	1	3	10	1
Gaston	. . .	413	413	. . .	378	378	35	92.0	1	.	.	1	2	6	1
Gibson	110	106	216	101	94	195	21	91.0	1	.	.	.	2	3	1
Hancock	. . .	565	565	. . .	542	542	23	96.0	1	.	.	1	4	8	1
Harris	104	111	215	97	102	199	16	93.0	1	.	.	.	1	4	.
Harvard, Ch. . . .	307	268	575	290	249	539	36	94.0	1	1	.	1	2	9	1
Harvard, Br. . . .	133	151	284	120	136	256	28	90.0	1	.	.	1	6	5	.

* Female Principal.

GRAMMAR SCHOOLS. — *Continued.*

Schools.	Average whole Number.			Average Attendance.			Average Absence.	Per cent. of Attendance.	Masters.	Sub-Masters.	Ushers.	Masters' Ass'ts.	H. Assistants.	Assistants.	Sew'g Teach's.
	Boys.	Girls.	Total.	Boys.	Girls.	Total.									
Hillside	. . .	229	229	. . .	210	210	19	92.0	1	.	.	.	.	6	1
Lawrence	962	. . .	962	928	. . .	928	34	96.0	1	1	2	1	1	13	.
Lewis	297	268	565	279	252	531	34	94.0	1	1	.	1	2	8	1
Lincoln	558	. . .	558	527	. . .	527	31	94.0	1	1	1	1	1	7	.
Lowell	219	205	424	213	198	411	13	97.0	1	1	.	1	1	4	1
Lyman	422	196	618	399	187	586	32	95.0	1	1	.	1	3	7	1
Mather	148	158	306	131	139	270	36	88.0	1	.	.	.	1	6	.
Mayhew	407	. . .	407	376	. . .	376	31	93.0	1	1	1	1	1	6	.
Minot	110	120	230	102	106	208	22	90.0	1	.	.	.	1	4	.
Mt. Vernon	66	62	128	62	58	120	8	93.0	1	.	.	.	.	4	.
Norcross	. . .	637	637	. . .	608	608	29	96.0	1	.	.	1	2	11	1
Phillips	490	. . .	490	453	. . .	453	37	92.0	1	1	1	1	1	8	.
Prescott	341	284	625	321	269	590	35	94.0	1	1	.	1	3	7	.
Prescott, Ch. . . .	239	225	464	228	214	442	22	95.0	1	1	.	1	2	6	
Quincy	653	. . .	653	612	. . .	612	41	94.0	1	1	1	1	1	9	.
Rice	632	. . .	632	597	. . .	597	35	94.0	1	1	1	1	.	11	.
Sherwin	423	431	854	399	406	805	49	95.0	1	1	.	1	3	13	1
Shurtleff	. . .	719	719	. . .	653	653	66	91.0	1	.	.	1	2	10	1
Stoughton	117	90	207	109	82	191	16	92.0	1	.	.	.	1	5	.
Tileston	32	34	66	28	30	58	8	87.0	.	.	1	.	.	2	.
Warren	310	339	649	296	317	613	36	94.0	1	1	.	1	2	9	.
Wells	. . .	405	405	. . .	382	382	23	94.0	1	.	.	1	2	6	1
Winthrop	. . .	880	880	. . .	796	796	84	90.0	1	.	.	2	3	13	1
Winthrop, Ch. . .	266	268	534	249	247	496	38	93.0	1	1	.	1	2	7	.
Totals	13,178	11,610	24,788	12,392	10,786	23,178	1610	93.9	49	26	12	40	87	266	25

GRAMMAR SCHOOLS.

Table showing the number of Pupils in each Class, the number of the different ages, and the whole number in each Grammar School, January 31, 1876.

Schools.	First Class.	Second Class.	Third Class.	Fourth Class.	Fifth Class.	Sixth Class.	Whole number.	Under eight years.	Eight years.	Nine years.	Ten years.	Eleven years.	Twelve years.	Thirteen years.	Fourteen years.	Fifteen years and over.
Adams	40	41	95	94	104	108	482	. . .	7	49	76	77	90	72	56	55
Andrew	10	14	30	51	95	232	432	5	42	80	85	86	58	37	24	15
Bennett	27	37	50	52	53	58	277	. . .	10	21	31	48	57	39	38	33
Bigelow	43	56	109	103	227	171	709	1	45	96	121	139	130	88	68	21
Bowditch	36	33	38	34	71	119	331	. . .	15	38	65	41	62	51	31	28
Bowdoin	30	62	67	69	87	104	419	1	12	35	44	58	63	78	70	58
Brimmer	35	71	99	108	143	141	597	3	40	71	114	79	79	110	71	30
Bunker Hill	38	55	95	133	117	155	593	. . .	22	83	87	91	98	95	68	49
Central	13	36	47	51	66	76	289	1	6	30	36	47	51	51	33	34
Chapman	40	46	88	101	97	153	525	1	23	54	65	66	79	87	79	71
Comins	44	35	89	101	148	297	714	2	16	66	103	141	120	123	86	57
Dearborn	40	125	96	100	206	306	873	2	14	85	136	156	139	135	104	102
Dudley (*Boys*)	35	50	45	88	93	106	417	8	22	45	67	76	62	60	47	30
Dudley (*Girls*)	16	21	45	54	87	81	304	2	12	22	47	54	51	42	42	32
Dwight	44	90	87	103	100	160	584	. . .	13	66	95	96	92	89	74	59
Eliot	30	84	79	92	177	172	634	4	30	76	118	117	116	94	61	18
Everett	48	102	84	135	157	135	661	1	14	50	94	113	95	101	85	108
Everett, Dor.	16	24	49	74	69	85	317	. . .	4	21	43	40	48	76	51	34
Florence	14	20	13	28	23	33	131	. . .	2	10	15	17	26	23	18	29
Franklin	41	99	98	136	145	152	671	2	18	67	85	103	96	103	79	118
[illegible]	35	77	46	51	90	112	411	6	3	37	53	64	72	56	59	61

Gibson	16	14	32	38	47	43	190	. . .	6	20	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Hancock	21	45	75	114	124	134	513	3	32	68	96	88	83	73	47	23
Harris	19	38	39	54	46	19	215	. . .	. . .	9	30	31	38	44	36	27
Harvard, Ch.	41	78	97	109	130	116	571	. . .	5	45	86	100	117	95	84	39
Harvard, Br.	13	30	33	57	63	70	266	2	11	32	55	55	47	46	16	2
Hillside	23	25	27	43	49	46	213	. . .	10	13	39	38	41	34	18	20
Lawrence	42	93	141	201	210	213	900	1	26	119	148	160	167	147	85	47
Lewis	64	98	89	101	102	98	552	1	12	50	72	80	89	74	73	101
Lincoln	30	50	86	132	118	129	545	. . .	17	54	86	85	88	92	57	66
Lowell	26	29	43	56	110	109	373	. . .	19	37	70	73	51	43	47	33
Lyman	34	22	57	135	160	219	627	1	15	73	92	96	121	89	74	66
Mather	5	31	53	56	49	130	324	5	29	35	50	59	53	42	38	13
Mayhew	27	42	39	75	120	85	388	2	14	49	55	76	65	57	39	31
Minot	17	19	32	44	43	47	202	. . .	11	33	28	31	26	26	18	29
Mount Vernon	14	24	22	20	20	31	131	. . .	6	17	16	18	26	25	19	4
Norcross	29	72	81	88	171	177	618	3	27	60	99	92	129	106	48	54
Phillips	30	42	125	85	71	113	466	. . .	10	64	70	74	80	82	49	37
Prescott	33	42	91	90	143	196	595	3	21	52	80	99	93	99	79	69
Prescott, Ch.	35	51	74	99	87	103	449	2	25	48	81	53	67	59	57	57
Quincy	39	43	136	106	148	147	619	1	31	92	125	126	112	78	40	14
Rice	44	51	101	88	140	186	610	1	21	51	93	121	87	87	84	65
Sherwin	71	82	91	104	214	258	820	1	23	95	125	151	137	128	78	72
Shurtleff	50	49	109	113	219	175	715	1	26	67	104	92	133	104	108	80
Stoughton	11	18	39	41	47	54	210	2	13	29	25	32	24	32	33	20
Tileston	10	13	13	9	19	13	77	1	6	10	8	9	14	8	10	11
Warren	39	53	157	108	130	139	626	2	36	60	93	92	88	113	72	70
Wells	40	38	41	86	91	98	394	2	14	38	44	70	64	57	58	47
Winthrop	61	85	95	187	217	227	872	5	46	110	149	143	129	114	82	94
Winthrop, Ch.	27	43	89	98	138	96	491	. . .	20	53	90	94	78	87	49	20
Totals	1,586	2,498	3,556	4,295	5,581	6,427	23,943	78	902	2,585	3,704	3,976	3,969	3,708	2,760	2,261

GRAMMAR SCHOOLS.

Table showing the number of Pupils in each Class, the number of the different ages, and the whole number in each Grammar School, July 31, 1876.

Schools.	First Class.	Second Class.	Third Class.	Fourth Class.	Fifth Class.	Sixth Class.	Whole number.	Under eight years.	Eight years.	Nine years.	Ten years.	Eleven years.	Twelve years.	Thirteen years.	Fourteen years.	Fifteen years and over.
Adams	38	37	75	76	95	158	479	. . .	15	56	71	64	84	75	50	64
Andrew	11	13	35	39	79	208	385	2	24	62	87	83	59	22	26	20
Bennett	23	33	43	49	52	60	260	. . .	11	22	29	45	57	37	27	32
Bigelow	36	47	87	201	208	144	723	4	65	108	126	113	118	93	58	38
Bowditch	30	25	31	44	75	124	329	. . .	21	41	59	52	50	47	27	32
Bowdoin	27	64	64	68	87	128	438	. . .	27	38	53	41	58	81	66	74
Brimmer	35	99	107	112	108	164	625	4	41	75	108	99	99	92	65	47
Bunker Hill	30	56	81	121	130	161	579	. . .	21	72	93	85	96	87	70	55
Central	12	31	48	49	80	81	301	. . .	13	35	48	48	36	48	38	35
Chapman	39	42	84	115	117	175	572	1	23	69	70	74	77	84	81	93
Comins	32	42	92	99	215	246	726	1	22	74	112	146	132	111	84	44
Dearborn	36	105	84	94	200	292	811	. . .	21	69	123	145	122	126	107	98
Dudley (*Boys*)	31	33	42	90	94	104	394	. . .	18	54	61	69	65	53	51	30
Dudley (*Girls*)	19	12	39	47	73	77	267	. . .	9	34	41	44	40	32	39	28
Dwight	40	70	72	75	91	145	493	1	13	53	74	76	77	81	60	58
Eliot	29	88	85	76	190	184	652	1	35	74	120	112	129	100	58	23
Everett	44	82	89	97	90	120	522	. . .	20	44	68	79	65	76	66	104
Everett, Dor.	16	20	49	66	72	102	325	7	14	29	37	38	51	60	50	39
Florence	12	16	18	20	20	30	116	. . .	. . .	14	17	18	24	19	18	16
Franklin	40	85	65	131	131	144	596	1	18	54	86	89	91	83	65	109
Gaston	33	70	41	74	96	76	390	. . .	1	18	55	76	65	55	46	16

Gibson	14	13	30	36	45	86	224	2	8	39	40	38	34	26	26	1[illegible]
Hancock	22	42	82	120	130	145	541	. . .	16	49	104	91	72	68	58	83
Harris	27	35	49	54	30	24	219	3	11	22	31	32	46	38	20	16
Harvard, Ch.	27	47	109	76	92	198	549	1	20	66	72	81	96	87	75	51
Harvard, Br.	14	29	46	46	72	74	281	3	17	32	51	49	47	35	25	22
Hillside	23	25	38	38	52	50	226	. . .	8	20	37	38	43	30	23	27
Lawrence	42	94	153	203	212	204	908	1	41	101	136	151	175	142	109	52
Lewis	54	97	93	98	98	104	544	1	19	59	55	97	68	78	66	101
Lincoln	26	39	69	116	138	131	519	1	23	62	91	91	79	84	48	50
Lowell	23	28	55	55	102	150	413	. . .	11	56	67	77	76	49	47	30
Lyman	22	28	50	117	144	196	557	. . .	12	58	78	81	105	95	60	64
Mather	4	29	44	55	78	90	300	4	13	36	50	60	48	51	26	12
Mayhew	17	32	37	74	121	81	362	1	25	41	55	65	68	49	33	25
Minot	17	17	26	38	42	89	228	6	26	31	36	37	25	22	17	28
Mount Vernon	12	19	15	23	20	35	124	. . .	4	17	14	15	35	16	19	4
Norcross	27	61	66	72	184	157	567	. . .	32	64	91	101	87	84	58	50
Phillips	28	33	98	76	84	115	434	1	17	49	75	84	68	52	43	45
Prescott	32	31	88	90	142	197	580	4	16	67	70	103	90	86	77	67
Prescott, Ch.	34	44	60	101	100	115	463	1	20	71	76	61	64	53	56	61
Quincy	38	38	81	142	144	165	608	4	47	77	97	122	116	83	47	15
Rice	41	44	134	88	138	149	594	. . .	20	58	88	89	97	82	83	77
Sherwin	56	81	86	94	211	245	773	2	35	92	143	140	118	106	65	72
Shurtleff	48	44	96	97	209	212	706	2	35	77	86	102	110	114	86	94
Stoughton	10	14	30	32	40	71	197	2	12	33	19	30	33	25	24	19
Tileston	6	11	12	11	19	10	69	. . .	4	2	11	13	9	12	9	9
Warren	37	52	144	106	146	164	649	1	35	85	89	82	100	108	77	72
Wells	41	35	37	83	90	92	378	. . .	18	46	56	53	60	45	44	56
Winthrop	55	89	88	176	188	204	800	4	49	94	145	132	101	101	84	90
Winthrop, Ch.	25	37	81	89	109	183	524	1	23	73	100	85	76	78	63	25
Totals	1,435	2,247	3,337	4,139	5,483	6,659	23,300	66	1,049	2,653	3,601	3,786	3,736	3,362	2,607	2,440

PRIMARY SCHOOLS.

Abstract of Semi-Annual Returns, January 31, 1876.

Districts.	Schools.	Average whole Number.			Average Attendance.			Average Absence.	Per cent. of Attendance.	Between 5 and 8 years.	Over 8 years.	Whole No. at date.
		Boys.	Girls.	Total.	Boys.	Girls.	Total.					
Adams	8	262	103	365	248	93	341	23	93.4	211	164	375
Andrew	8	222	179	401	207	164	371	30	92.5	289	138	427
Bennett	4	98	87	185	84	69	153	32	82.7	102	93	195
Bigelow	14	383	270	653	357	247	604	49	92.5	451	203	654
Bowditch . . .	13	279	292	571	259	263	522	49	91.4	359	230	589
Bowdoin	10	188	240	428	172	214	386	42	90.2	292	179	471
Brimmer	9	214	197	411	195	176	371	40	90.2	288	136	424
Bunker Hill . .	11	257	250	507	234	227	461	46	90.9	289	259	548
Central	5	148	79	227	139	71	210	17	92.0	160	76	236
Chapman . . .	12	339	217	556	311	199	510	46	91.8	355	196	551
Comins	16	407	409	816	378	377	755	61	92.5	470	326	796
Dearborn . . .	18	466	434	900	417	375	792	108	88.0	496	391	887
Dudley (*Boys*)	9	217	196	413	200	180	380	33	92.0	231	175	406
Dwight	6	141	133	274	130	120	250	24	91.2	190	114	304
Eliot	16	448	220	668	413	201	614	54	91.9	424	261	685
Everett	11	310	252	562	287	228	515	47	91.6	356	256	612
Everett, Dor. . .	4	104	87	191	96	75	171	20	89.5	104	82	186
Florence	4	85	88	173	80	79	159	14	86.1	97	76	173
Franklin	6	138	128	266	128	114	242	24	90.0	138	115	253
Gaston	8	200	198	398	189	178	367	31	92.2	207	176	383
Gibson	4	88	84	172	79	73	152	20	88.3	97	86	183
Hancock	17	339	440	779	320	410	730	49	93.7	458	325	783
Harris	3	59	61	120	52	52	104	16	86.6	73	49	122
Harvard, Ch. . .	14	319	327	646	289	288	577	69	89.3	427	246	673
Harvard, Br. . .	5	120	91	211	106	78	184	27	87.2	111	79	190

PRIMARY SCHOOLS. — *Continued.*

Districts.	Schools.	Average whole Number.			Average Attendance.			Average Absence.	Per cent. of Attendance.	Between 5 and 8 years.	Over 8 years.	Whole No. at date.
		Boys.	Girls.	Total.	Boys.	Girls.	Total.					
Hillside	4	99	85	184	89	77	166	18	90.0	102	84	186
Lawrence . . .	19	744	171	915	709	159	868	47	94.8	607	324	931
Lewis	11	288	246	534	265	218	483	51	90.4	310	224	534
Lincoln	7	287	75	362	265	65	330	32	91.1	173	202	375
Lowell	8	218	168	386	204	156	360	26	93.2	226	162	388
Lyman	8	234	136	370	221	125	346	24	93.6	206	182	388
Mather	4	104	98	202	92	84	176	26	87.1	140	76	216
Mayhew	7	178	77	255	157	68	225	30	88.2	128	151	279
Minot	4	83	94	177	76	82	158	19	89.2	113	68	181
Mount Vernon .	3	41	55	96	39	51	90	6	93.6	61	38	99
Norcross	7	16	336	352	15	323	338	14	96.0	209	149	358
Phillips	8	158	141	299	141	118	259	40	86.5	163	158	321
Prescott	10	281	237	518	259	212	471	47	90.9	279	250	529
Prescott, Ch. . .	5	120	125	245	112	112	224	21	91.4	175	77	252
Quincy	7	167	186	343	155	162	317	26	92.4	236	116	352
Rice	15	346	346	692	319	310	629	63	90.9	359	325	684
Sherwin	15	383	370	753	360	349	709	44	94.1	469	329	798
Shurtleff	6	161	166	327	149	149	298	29	91.1	171	139	310
Stoughton . . .	3	61	62	123	56	56	112	11	91.0	86	49	135
Tileston	1	10	15	25	10	14	24	1	96.0	22	6	28
Warren	7	205	174	379	185	157	342	37	90.2	224	196	420
Wells	12	250	269	519	232	250	482	37	92.8	330	195	525
Winthrop . . .	7	145	146	291	134	132	266	25	91.5	222	88	310
Winthrop, Ch. .	8	204	203	407	186	180	366	41	89.9	273	157	430
Totals	421	10,614	9,043	19,657	9,800	8,160	17,960	1,697	91.2	11,959	8,176	20,135

PRIMARY SCHOOLS.

Abstract of Semi-Annual Returns, July 31, 1876.

Districts.	Schools.	Average whole Number.			Average Attendance.			Average Absence.	Per cent. of Attendance.	Between 5 and 8 years.	Over 8 years.	Whole No. at date.
		Boys.	Girls.	Total.	Boys.	Girls.	Total.					
Adams	8	248	91	339	228	84	312	27	92.0	211	142	353
Andrew	8	219	166	385	204	148	352	33	91.4	261	164	425
Bennett	4	117	96	213	100	78	175	35	83.1	130	106	236
Bigelow	13	346	224	570	328	204	532	38	93.3	407	180	587
Bowditch . . .	13	288	289	577	264	262	526	51	91.0	380	217	597
Bowdoin	10	197	230	427	178	206	384	43	89.9	295	165	460
Brimmer	9	203	200	403	185	179	364	39	90.3	287	113	400
Bunker Hill . .	11	259	258	517	235	228	463	54	89.5	314	235	549
Central	5	134	77	211	123	69	192	19	90.9	136	88	224
Chapman . . .	12	311	209	520	283	186	469	51	90.2	348	177	525
Comins	17	427	423	850	390	383	773	77	90.9	547	330	877
Dearborn . . .	18	461	410	871	419	355	774	97	88.8	559	385	944
Dudley (*Boys*)	9	219	173	392	204	160	364	28	92.8	227	180	407
Dwight	6	124	138	262	115	123	238	24	90.8	188	105	293
Eliot	16	460	222	682	424	202	626	56	91.8	426	275	701
Everett	11	304	247	551	283	223	506	45	91.8	341	283	624
Everett Dor. . .	4	101	81	182	93	70	163	19	89.6	90	97	187
Florence	4	86	94	180	76	84	160	20	88.8	97	92	189
Franklin	6	126	127	253	117	113	230	23	90.9	144	109	253
Gaston	8	189	187	376	181	165	346	30	91.9	235	159	394
Gibson	4	94	78	172	85	67	152	20	88.3	130	185	215
Hancock	17	329	409	738	313	376	689	49	93.3	441	306	747
Harris	3	60	65	125	53	55	108	17	86.4	87	35	122
Harvard, Ch. . .	14	314	317	631	287	285	572	59	90.6	461	258	719
Harvard, Br. . .	5	130	88	218	114	78	192	26	88.1	157	90	247

PRIMARY SCHOOLS. — *Continued.*

Districts.	Schools.	Average whole Number.			Average Attendance.			Average Absence.	Per cent. of Attendance.	Between 5 and 8 years.	Over 8 years.	Whole No. at date.
		Boys.	Girls.	Total.	Boys.	Girls.	Total.					
Hillside	4	92	76	168	85	67	152	16	90.5	111	71	182
Lawrence . . .	21	793	220	1013	759	206	965	48	95.2	606	407	1013
Lewis	11	259	218	477	233	190	423	54	88.7	335	194	529
Lincoln	7	277	67	344	249	61	310	34	90.1	173	179	352
Lowell	9	222	179	401	205	165	370	31	92.0	261	166	427
Lyman	8	235	139	374	222	129	351	23	93.8	215	172	387
Mather	4	101	92	193	89	78	167	26	82.7	160	66	226
Mayhew	7	184	83	267	161	71	232	35	86.8	134	155	289
Minot	3	66	79	145	59	68	127	18	87.6	101	41	142
Mount Vernon .	3	49	61	110	45	55	100	10	90.9	71	51	122
Norcross	7	3	329	332	2	315	317	15	95.5	196	147	343
Phillips	8	148	122	270	125	102	227	43	84.1	158	151	309
Prescott	10	272	217	489	249	192	441	48	90.8	277	222	499
Prescott, Ch. . .	5	129	116	245	120	104	224	21	91.0	214	65	279
Quincy	7	161	172	333	150	158	308	25	92.2	231	117	348
Rice	15	356	326	682	323	294	617	65	90.5	341	304	645
Sherwin	15	389	353	742	365	328	693	49	93.4	473	312	785
Shurtleff	6	132	166	298	122	151	273	25	91.5	194	113	307
Stoughton . . .	3	55	57	112	50	52	102	10	90.3	95	37	132
Tileston	1	17	17	34	16	16	32	2	92.0	29	10	39
Warren	7	197	168	365	181	150	331	34	90.8	219	176	395
Wells	12	244	271	515	225	247	472	43	91.6	337	201	538
Winthrop . . .	7	139	128	267	129	113	242	25	90.6	184	73	257
Winthrop, Ch. .	8	191	209	400	172	182	354	46	88.5	292	134	426
Totals	423	10,457	8,764	19,221	9,618	7,877	17,495	1,726	91.0	12,306	7,940	20,246

PRIMARY SCHOOLS.

Table showing the number of Pupils in each Class, the number of the different ages, and the whole number in each District, July 31, 1876.

DISTRICTS.	First Class.	Second Class.	Third Class.	Fourth Class.	Fifth Class.	Sixth Class.	Whole No. Jan. 31, 1876.	Five years.	Six years.	Seven years.	Eight years.	Nine years and over.
Adams . . .	71	43	47	45	50	97	353	42	82	87	77	65
Andrew . . .	104	43	48	52	49	129	425	72	97	92	89	75
Bennett . . .	48	50	21	39	27	51	236	42	38	50	39	67
Bigelow . . .	90	97	110	84	122	84	587	64	172	171	115	65
Bowditch . .	106	66	82	82	101	160	597	112	147	121	118	99
Bowdoin . .	64	77	60	78	77	104	460	98	85	112	90	75
Brimmer . .	44	42	60	49	92	113	400	61	121	105	69	44
Bunker Hill .	85	90	69	80	83	142	549	90	117	107	102	133
Central . . .	42	33	30	46	32	41	224	37	38	61	48	40
Chapman . .	75	71	89	94	90	106	525	78	120	148	92	87
Comins . . .	143	108	81	106	158	281	877	166	173	208	154	176
Dearborn . .	130	115	111	123	195	270	944	141	203	199	199	202
Dudley(*Boys*)	47	113	56	43	61	87	407	56	74	97	96	84
Dwight . . .	47	43	44	46	49	64	293	44	77	67	59	46
Eliot	105	114	100	93	118	171	701	103	161	162	120	155
Everett . . .	87	90	110	102	103	132	624	88	97	156	145	138
Everett, Dor.	37	43	38	19	25	25	187	25	25	40	49	48
Florence . .	29	36	. . .	25	42	47	189	28	36	33	45	47
Franklin . .	48	37	43	40	38	47	253	43	50	51	60	49
Gaston . . .	45	52	99	45	94	59	394	44	78	113	89	70
Gibson . . .	44	15	13	45	28	70	215	33	54	50	55	23
Hancock . .	89	125	107	108	153	175	747	121	163	157	139	167
Harris	27	19	26	10	15	25	122	17	41	32	13	19
Harvard, Ch.	109	101	82	100	94	233	719	114	168	179	144	114
Harvard, Br.	60	27	25	38	28	69	247	36	56	65	49	41
Hillside . . .	24	28	26	32	23	49	182	40	38	33	33	38

PRIMARY SCHOOLS. — *Continued.*

Districts.	First Class.	Second Class.	Third Class.	Fourth Class.	Fifth Class.	Sixth Class.	Whole No. Jan. 31, 1876.	Five years.	Six years.	Seven years.	Eight years.	Nine years and over.
Lawrence . .	161	154	174	142	147	235	1013	145	225	226	241	176
Lewis	79	79	75	67	79	150	529	75	126	134	105	88
Lincoln . . .	64	49	54	54	63	68	352	34	56	83	77	102
Lowell . . .	60	54	67	70	55	121	427	48	98	115	94	72
Lyman . . .	77	34	52	59	52	113	387	53	70	92	93	79
Mather . . .	9	36	20	34	54	73	226	49	62	49	37	29
Mayhew . .	56	58	30	53	33	59	289	58	28	48	51	104
Minot	9	36	19	38	17	23	142	36	32	33	18	23
Mt. Vernon .	33	22	32	23	9	3	122	12	32	27	27	24
Norcross. . .	50	50	45	47	54	97	343	50	65	81	61	86
Phillips . . .	53	75	40	50	51	40	309	60	44	54	56	95
Prescott . . .	69	70	95	58	104	103	499	74	95	108	111	111
Prescott, Ch.	24	54	24	51	39	87	279	65	65	84	40	25
Quincy . . .	43	46	46	53	69	91	348	57	96	78	79	38
Rice	98	110	119	103	90	125	645	99	108	134	141	163
Sherwin . . .	90	82	107	69	192	245	785	120	187	166	172	140
Shurtleff . .	32	51	49	39	59	77	307	40	79	75	68	45
Stoughton . .	21	21	35	9	46	. .	132	39	31	25	30	7
Tileston . . .	9	7	. .	11	. .	12	39	10	9	10	5	5
Warren . . .	93	67	57	51	47	80	395	53	81	85	83	93
Wells	69	65	85	78	108	133	538	89	127	121	106	95
Winthrop . .	38	36	45	38	39	61	257	36	67	81	50	23
Winthr'p, Ch.	59	57	49	85	79	97	426	92	116	84	89	45
Totals . .	3,096	2,991	2,896	2,916	3,433	4,914	20,246	3,159	4,420	4,689	4,143	3,835

PRIMARY SCHOOLS.

Table showing the number of Pupils in each Class, the number of the different ages, and the whole number in each District, January 31, 1876.

Districts.	First Class.	Second Class.	Third Class.	Fourth Class.	Fifth Class.	Sixth Class.	Whole No. Jan. 31, 1876.	Five years.	Six years.	Seven years.	Eight years.	Nine years and over.
Adams . . .	59	65	50	34	47	120	375	41	81	89	83	81
Andrew . . .	58	53	52	45	48	171	427	88	107	94	76	62
Bennett . . .	55	34	29	29	29	19	195	20	39	43	35	58
Bigelow . . .	107	101	101	104	83	158	654	101	158	192	131	72
Bowditch . .	82	91	86	82	91	157	589	89	126	144	132	98
Bowdoin . .	52	65	67	26	73	152	471	86	77	128	108	72
Brimmer . .	57	58	50	55	95	109	424	74	111	103	84	52
Bunker Hill .	58	96	92	64	92	146	548	67	110	125	113	133
Central . . .	39	38	42	47	37	33	236	28	44	46	56	62
Chapman . .	70	78	76	102	97	128	551	85	134	136	114	82
Comins . . .	85	139	103	110	123	236	796	87	192	191	165	161
Dearborn . .	144	152	120	121	155	195	887	112	171	213	187	204
Dudley(*Boys*)	41	98	43	75	75	74	406	48	84	106	90	78
Dwight . . .	43	49	45	50	49	70	304	45	68	77	76	38
Eliot	103	102	102	98	107	173	685	93	160	144	154	134
Everett . . .	71	77	99	113	100	152	612	79	117	150	131	135
Everett, Dor.	22	27	33	45	22	37	186	16	32	56	46	36
Florence . .	42	38	. . .	22	40	31	173	18	31	48	31	45
Franklin . .	46	38	43	37	42	47	253	28	46	64	57	58
Gaston . . .	47	53	54	58	66	105	383	34	84	89	96	80
Gibson . . .	37	24	22	27	26	47	183	26	29	42	39	47
Hancock . .	101	116	107	125	153	181	783	120	174	168	148	173
Harris	14	22	23	19	13	31	122	11	21	41	27	22
Harvard, Ch.	111	125	90	81	92	174	673	102	148	177	129	117
Harvard, Br.	27	43	42	14	24	40	190	26	44	41	43	36
Hillside . . .	31	22	29	26	33	45	182	33	30	39	41	43

PRIMARY SCHOOLS. — *Continued.*

Districts.	First Class.	Second Class.	Third Class.	Fourth Class.	Fifth Class.	Sixth Class.	Whole No. Jan. 31, 1876.	Five years.	Six years.	Seven years.	Eight years.	Nine years and over.
Lawrence . .	123	159	144	157	181	167	931	132	203	237	192	167
Lewis	78	80	84	69	60	163	534	56	112	142	115	109
Lincoln . . .	67	61	69	57	57	64	375	18	52	103	88	114
Lowell . . .	52	39	61	91	51	94	388	30	81	115	87	75
Lyman . . .	62	55	56	60	48	107	388	43	78	85	96	86
Mather . . .	13	26	24	25	40	88	216	33	65	52	41	25
Mayhew . .	35	39	35	60	46	64	279	39	36	53	54	97
Minot	53	42	23	39	24	. .	181	30	34	49	36	32
Mt. Vernon .	31	21	17	19	7	4	99	12	30	19	22	16
Norcross. . .	37	49	57	48	47	120	358	57	62	90	68	81
Phillips . . .	50	69	57	32	31	82	321	59	46	58	53	105
Prescott . . .	77	69	60	99	58	141	529	53	110	116	103	147
Prescott, Ch.	30	46	23	38	47	68	252	35	70	70	57	20
Quincy . . .	44	52	51	48	66	91	352	55	85	96	68	48
Rice	79	108	103	138	85	171	684	95	111	153	150	175
Sherwin . . .	89	100	96	86	153	274	798	108	173	188	170	159
Shurtleff . .	42	55	55	57	46	55	310	14	65	92	82	57
Stoughton . .	24	17	19	19	20	36	135	29	24	33	29	20
Tileston . . .	8	8	. .	7	5	. .	28	6	7	9	5	1
Warren . . .	104	72	56	56	39	93	420	56	94	94	92	104
Wells	68	74	77	64	86	156	525	77	141	141	105	90
Winthrop . .	60	31	45	42	43	89	310	48	88	86	66	22
Winthr'p, Ch.	68	79	44	61	86	92	430	86	101	86	85	72
Totals . .	2,896	3,180	2,856	3,017	3,136	5,050	20,135	2,728	4,237	4,913	4,256	4,001

CLASSIFICATION OF PRIMARY SCHOOLS.

JULY, 1876.

Districts.	Schools having						1st Class only.	6th Class only.
	One Class.	Two Classes.	Three Classes.	Four Classes.	Five Classes.	Six Classes.		
Adams	5	2	1	...	...	...	...	2
Andrew	8	...	...	...	...	...	2	2
Bennett	1	1	1	...	1	...	1	...
Bigelow	13	...	...	...	...	...	2	2
Bowditch	13	...	...	...	...	...	2	3
Bowdoin	3	6	...	1	...	...	...	1
Brimmer	8	...	...	1	...	...	1	2
Bunker Hill	...	1	...	...	...	...	...	...
Central	...	...	4	...	...	1	...	...
Chapman	12	...	...	...	...	...	2	2
Comins	13	3	...	...	1	...	3	4
Dearborn	16	2	...	...	...	...	2	4
Dudley (*Boys*)	1	8	...	...	...	...	...	1
Dwight	6	...	...	...	...	...	1	1
Eliot	13	...	2	...	1	...	2	3
Everett	10	1	...	...	...	...	1	2
Everett, Dorchester	1	3	...	...	...	...	1	...
Florence	1	2	1	...	...	...	...	...
Franklin	6	...	...	...	...	...	1	1
Gaston	8	...	...	...	...	...	1	...
Gibson	...	...	3	1	...	...	...	...
Hancock	4	10	2	...	...	1	...	2
Harris	...	3	...	...	...	...	...	...
Harvard, Charlestown	9	5	...	...	...	...	2	1
Harvard, Brighton	...	...	4	...	...	1	...	...

CLASSIFICATION OF PRIMARY SCHOOLS. — *Continued.*

Districts.	Schools having						1st Class only.	6th Class only.
	One Class.	Two Classes.	Three Classes.	Four Classes.	Five Classes.	Six Classes.		
Hillside	...	...	4	...	...	...	...	...
Lawrence	19	...	2	...	...	...	3	4
Lewis	1	4	4	1	...	1	...	1
Lincoln	6	...	...	...	1	...	1	1
Lowell	2	4	2	1	...	...	...	...
Lyman	6	1	...	1	...	...	1	2
Mather	2	2	...	...	...	...	...	1
Mayhew	...	3	3	1	...	...	...	...
Minot	...	1	1	1	...	...	...	...
Mt. Vernon	...	...	...	...	2	1	...	...
Norcross	7	...	...	...	...	...	1	2
Phillips	...	7	1	...	...	...	...	...
Prescott	8	2	...	...	...	...	...	2
Prescott, Ch.	...	2	3	...	...	...	...	...
Quincy	6	1	...	...	...	...	1	1
Rice	9	5	...	...	1	...	1	2
Sherwin	6	8	...	...	1	...	...	3
Shurtleff	1	5	...	...	...	...	...	1
Stoughton	1	2	...	...	...	...	1	...
Tileston	...	...	...	4	...	...	...	...
Warren	2	2	2	1	...	...	1	1
Wells	7	2	1	...	...	1	1	2
Winthrop	7	...	...	...	...	...	1	2
Winthrop, Ch.	5	3	...	...	...	...	1	...
Totals	246	101	40	13	8	6	37	58

The following Table shows the number of persons in the city between the ages of five and fifteen, in the month of May, for ten years, and also the amount received by the city, in each year, from the State School Fund: —

Years.	Persons between Five and Fifteen Years of Age.	Proportion of Income from School Fund.
1867	36,030	5,310 30
1868	43,109	11,545 13
1869	42,624	8,171 38
1870	46,301	7,226 79
1871	45,970	12,015 14
1872	46,144	9,363 24
1873	48,001	8,920 19
1874	56,684	8,597 14
1875	60,255	.....
1876	58,636	.....

The following Table shows the average whole number, the average attendance and the per cent. of attendance, of the Public Day Schools, *of all grades, for ten years, ending July,* 1876: —

Years.	Average Whole Number.	Average Attendance.	Per cent.
1865–66	27,723	25,809	93.5
1866–67	28,126	26,265	94.0
1867–68	32,885	30,399	92.7
1868–69	33,535	31,126	93.3
1869–70	35,164	32,463	92.3
1870–71	36,174	33,464	92.5
1871–72	36,234	33,502	92.4
1872–73	35,930	33,143	90.9
1873–74	44,942	41,613	92.6
1874–75	44,984	41,606	92.5
1875–76	46,098	42,797	92.8

The following Table shows the aggregate of the average whole number and attendance of the pupils of the HIGH SCHOOLS, *for ten years, ending July,* 1876: —

YEARS.	Average Whole Number.	Average Attendance.	Per cent.
1866–67	873	845	96.7
1867–68	1,050	977	95.7
1868–69	1,064	1,025	95.7
1869–70	1,283	1,230	95.9
1870–71	1,501	1,430	95.2
1871–72	1,640	1,553	93.8
1872–73	1,745	1,648	92.9
1873–74	2,072	1,967	94.9
1874–75	2,180	2,067	94.8
1875–76	2,173	2,062	94.8

The following Table shows the aggregate of the average whole number and attendance of the GRAMMAR SCHOOLS, *for ten years, ending July,* 1876: —

YEARS.	Average Whole Number.	Average Attendance.	Per cent.
1866–67	14,849	14,026	94.1
1867–68	17,450	16,362	93.1
1868–69	18,043	16,963	93.9
1869–70	19,028	17,807	93.2
1870–71	19,565	18,312	92.3
1871–72	19,760	18,500	92.8
1872–73	19,267	17,973	93.2
1873–74	23,863	22,417	93.9
1874–75	23,971	22,502	93.8
1875–76	24,329	22,867	93.9

The following Table shows the aggregate of the average whole number and attendance of the pupils of the PRIMARY SCHOOLS, *for ten years, ending July*, 1876:—

YEARS.	Average Whole Number.	Average Attendance.	Per cent.
1866–67	12,405	11,393	91.1
1867–68	14,385	13,060	89.3
1868–69	14,384	13,101	90.4
1869–70	14,739	13,330	90.4
1870–71	14,977	13,614	89.4
1871–72	14,716	13,351	89.8
1872–73	14,790	13,418	90.0
1873–74	18,867	17,100	90.6
1874–75	18,665	16,889	90.4
1875–76	19,439	17,728	91.0

The following Table shows the number of PRIMARY SCHOOLS, *the average number, and the average attendance to a school, for ten years, ending July*, 1876:—

YEARS.	Schools and Teachers.	Average No. to a School.	Average Attend. to a School.
1866–67	259	47.8	43.0
1867–68	303	47.4	43.1
1868–69	307	46.8	42.6
1869–70	323	45.9	41.2
1870–71	327	45.8	41.6
1871–72	325	43.9	39.8
1872–73	340	43.5	39.4
1873–74	416	45.3	41.1
1874–75	414	45.1	40.8
1875–76	423	45.4	41.3

ORDINARY EXPENDITURES.

Annual Expenditures for the Public Schools of Boston for the last twenty-two financial years, ending 30th of April, in each year, exclusive of the cost of the school-houses; also the average whole number of scholars for each school year ending July, 1875.

Financial Year.	No. of Schola's.	Salaries of Teachers.	Rate per Scholar.	Incidental Expenses.	Rate per Scholar.	Total Rate per Scholar.
1854–55..	23,439	$222,970 41	$9.51	$62,950 50	$2.66	$12.17
1855–56..	23,749	224,026 22	9.43	67,380 06	2.84	12.27
1856–57..	24,231	225,730 57	9.32	72,037 71	2.97	12.29
1857–58..	24,732	258,445 34	10.45	86,849 27	3.51	13.96
1858–59..	25,453	268,668 27	10.56	86,098 21	3.38	13.94
1859–60..	25,328	277,683 46	10.96	95,985 15	3.79	14.75
1860–61..	26,488	286,835 93	10.82	111,446 31	4.21	15.03
1861–62..	27,081	300,181 28	11.08	108,245 06	4.00	15.08
1862–63..	27,051	310,632 43	11.50	115,641 97	4.27	15.77
1863–64..	26,960	324,698 51	12.04	140,712 56	4.85	16.89
1864–65..	27,095	372,430 84	13.74	180,734 00	6.67	20.41
1865–66..	27,723	403,300 82	14.54	172,520 76	6.22	20.77
1866–67..	28,126	492,796 66	17.52	186,908 85	6.64	24.16
1867–68*.	32,885	548,615 90	18.61	224,090 51	7.60	26.21
1868–69..	†35,406	719,628 04	20.32	263,048 96	7.43	27.75
1869–70*.	38,414	720,960 65	19 40	226,451 95	6.09	25.49
1870–71..	38,220	816,344 66	21.36	315,254 70	8.25	29.61
1871–72..	38,706	863,658 81	22.31	352,920 84	9.12	31.43
1872–73..	38,815	929,852 41	23.96	362,620 50	9.34	33.30
1873–74*.	48,543	1,015,572 72	23.29	403,484 32	9.25	32.54
1874–75..	48,400	1,217,008 92	25.14	474,874 68	9.81	34.95
1875–76..	49,423	1,235,375 24	24.99	470,830 68	9.53	34.52

* Expense of annexed reckoned for four months.

† Evening School pupils included after this year.

TOTAL EXPENDITURES.

Table showing the net TOTAL *expenses of the city, for Education, for twenty-two years, from May* 1, 1854, *to April* 30, 1876, *inclusive.*

Financial Year.	Salaries of Teachers.	Incidental Expenses.	Cost of School-houses.	Total Expenditures.
1854–55.....	$222,970 41	$62,350 50	$103,814 73	$389,135 64
1855–56.....	224,026 22	67,380 06	149,732 80	411,139 08
1856–57.....	225,730 57	72,037 71	51,299 26	349,067 54
1857–58.....	258,445 34	86,849 27	225,000 00	570,294 61
1858–59.....	268,668 27	86,098 21	105,186 42	459,952 90
1859–60.....	277,683 46	95,985 15	144,202 67	517,871 28
1860–61.....	286,835 93	111,446 31	230,267 04	628,549 28
1861–62.....	300,181 28	108,245 06	166,181 50	574,567 84
1862–63.....	310,632 43	115,641 97	107,812 74	534,087 14
1863–64.....	324,698 51	140,712 56	5,870 87	471,281 94
1864–65.....	372,430 84	180,734 00	90,609 84	643,774 68
1865–66.....	403,300 82	172,520 76	200,532 64	776,375 22
1866–67.....	492,796 66	186,908 85	101,575 09	781,280 60
1867–68.....	548,615 90	224,090 51	188,790 80	961,497 51
1868–69.....	719,628 04	263,048 96	346,610 78	1,329,287 78
1869–70.....	720,960 65	266,451 95	612,337 86	1,599,750 46
1870–71.....	816,344 66	315,254 70	443,679 71	1,575,279 07
1871–72.....	863,658 81	352,920 84	97,800 68	1,314,380 33
1872–73.....	929,852 41	362,620 50	454,230 34	1,746,720 25
1873–74*.....	1,015,572 72	403,484 32	446,663 25	1,865,720 29
1874–75.....	1,217,008 92	507,364 69	356,669 74	2,081,043 35
1875–76.....	1,235,375 24	502,259 03	277,746 57	2,015,380 84

* Expense of Wards 17, 19, 20, 21, 22, only from January 1, 1874, to April.

REPORT

OF THE

COMMITTEE ON DRAWING.

1876.

REPORT.

Ordered, That the Programme of Instruction in Drawing be referred to the Committee on Drawing, with instructions to report the same to the Board in print.

June 13, 1876.

The following Programme of Instruction in Drawing for the ensuing year, prepared by the Director of Drawing, and herewith respectfully submitted in conformity to the above order, is the result of much careful study of the difficulties met with in carrying out the requirements of previous programmes. It has been framed after repeated consultations with the masters of the Grammar Schools, who, by explaining their views, both in conversation and in writing, have thrown much light upon the question, as to how the study of Drawing in its various branches can be carried on efficiently, economically, and with as little friction as possible. The chief difficulties met with arose from the number of subjects taught, and of books used in each class, and the consequent non-completion of books before the annual promotion in February, which necessitated waste of material, or the carrying of half-finished books from lower to

higher classes, with the use of two sets of books in the same class.

All these difficulties will disappear with the adoption of the present programme, which decreases the amount of work, by giving up Model Drawing in Classes 6, 5, 4 and 3, and Geometrical Drawing in Classes 6, 2 and 1.

The work of the classes will now be as follows: —

Class	6.	5.	4.	3.	2.	1.
	Freehand only.	Freehand. Geometrical.	Freehand. Geometrical.	Freehand. Geometrical.	Freehand. Model.	Freehand. Model.

By taking Geometrical Drawing (as in Classes 5, 4 and 3) for the first half of the year, and Freehand for the second half, and by taking Model (as in Classes 2 and 1) the first half, and Freehand the second half of the year, no pupil in the Grammar Schools will ever draw in more than one book during the half year, and each pupil will complete one book each half year, and no pupil will ever carry a half-finished book into a higher class.

As each pupil will have two books "per annum" instead of three as heretofore, the cost of books will be reduced one-third.

In order to keep the Drawing Committee fully informed of the attention given by the Special Instructors to the schools placed under their charge, they will be furnished with time-tables, with instructions to keep a record of their attendance, and to send in the same to the chairman every three months. Similar tables will be given to the masters, with similar instructions, and a request that they will report any

irregularity or tardiness on the part of the Special Instructors.

On behalf of the Committee,

CHARLES C. PERKINS,

Chairman.

JUNE 22, 1876.

PROGRAMME OF ELEMENTARY INSTRUCTION IN DRAWING IN THE PRIMARY SCHOOLS.

SIXTH CLASS.

Pupils are to be taught the names of lines, as straight or curved, distinguishing their several positions singly, as vertical or upright, horizontal or level, oblique or slanting; lines related to each other as parallel, at angles with one another as perpendicular, or square with obtuse and acute angles, the teacher using both the scientific and common names for lines and angles, which are always to be illustrated on the board by the teacher and on slates by the pupils, when the names are pronounced, or the lines and angles described by the teacher. The combination of three, four, or more lines to make figures, and the names of such figures and their parts to be given as exercises, after the names of single lines and two related have been learned.

Dividing lines into two equal parts, and subdividing them, and drawing very simple forms, such as those on the earlier numbers of the first series of cards, or in the Primary Manual. Patterns or objects composed of straight lines, and illustrating the lines and

their combinations already learned, should precede the drawing of curved lines. The filling of geometric forms, as squares, triangles, with points or short lines, or simple natural forms, such as leaves, arranged according to the pupil's own device, for recreation or amusement, as allowed in the Kindergarten system, to be permitted and encouraged.

Drawing from memory of forms previously drawn, and from dictation or oral description by the teacher, to be practised weekly.

The pupils should be taught how to rule a true straight line that they may know what to strive after when trying to draw it by Freehand.

FIFTH CLASS.

Reviewing the work done in the sixth class, the pupils will be taught to improve their handiwork by drawing straight lines more truly straight, the upright lines more vertical, and the level lines more horizontal than before. The curved line to be explained, as in Chap. III. of the Manual, and curved lines to be drawn singly and in combination with straight lines.

The definitions of the simpler geometric forms being recited by the teacher, the pupils are to draw the forms without a copy. Sometimes the pupils are to work entirely without mechanical help; but in other lessons, such as drawing the illustrations to geometric definitions, all the lines should be sometimes ruled and measured, and at other times be drawn entirely by Freehand, variety in execution being here better than uniformity.

FOURTH CLASS.

Review the exercises of the two previous classes, increasing the rapidity of the work. The drawings made from blackboard and cards should be as large as the slate will allow, leaving a margin of from half an inch to one inch around the edges of the slate.

The simpler forms of leaves and compound curves to be drawn; the first being then applied in filling squares and triangles, for designing exercises; the second to form the outlines of vases and pitchers, as described in Chap. V. of the Manual.

THIRD CLASS.

The pupils, on entering the third class, should be able to describe the simpler geometric forms, either in common language or by giving the accepted definition, and also draw the illustrations to them fairly well. The second series of cards should be finished in this class, either by enlargement from the cards or reduction from the teacher's drawing on the blackboard.

NOTE. — The practice of drawing in the four lower classes of Primary Schools is to awaken thought and give ideas about form, rather than to produce skill in expressing form. It is not well to urge the pupils too much in the direction of making very good lines or very perfect shapes, but rather to impress them with the distinction between different forms, appealing through the eye to the mind and memory. The greater the variety of the exercises the better, and if half an hour be too long for a lesson, a quarter of an hour or twenty minutes may be found suitable; the time devoted to drawing, being two hours per week, may thus be given in four, six, or eight lessons.

In all the classes the pupils must be taught both to rule good lines as well as to draw without use of the ruler, though the standard of results expected should be much higher in the case of a square made by use of the ruler and one drawn by the free hand. The work of the four lower classes in drawing is to be done on slates.

The order of lessons is to be

1. Enlargement from cards.
2. Reduction from blackboard.
3. Memory and dictation drawing, alternately.
4. Geometric definitions, drawn and described, with linear designing on alternate weeks.

SECOND CLASS.

In the second class drawing on paper is first taught. Review on paper the work which has been done in class four on slates, the first half of second series of cards being taken as subjects for instruction.

Drawing from dictation and memory, of the very simplest forms, should be given once in each week, to fix what has been learnt on the memory. Each lesson must be begun and finished on one-half of the page in the blank book, in the half hour devoted to one lesson, subjects being selected by the teacher of sufficient simplicity to ensure this.

FIRST CLASS.

The second half of the second series of cards, Nos. 7 to 14 inclusive, to be drawn in the first class. Instruction illustrating the words symmetry and repetition, to be given by the teacher from the chapter on design, pages 105 and 132, and that following it in the Manual.

New combinations of forms previously drawn to be made by the pupils, to learn arrangement and rearrangement, to prepare them for the elementary design practised in Grammar Schools.

DRAWING IN THE GRAMMAR SCHOOLS.

SIXTH CLASS.

Pupils will be taught to draw on paperthe elements of form, lines, angles, figures; also the division of lines into equal or unequal parts. In the first half of the school-year, from September to February, the Freehand book No. 1 will be completed, exercises in dictation and memory drawing being worked on the blank pages. From February to July the same book will be reviewed, the definitions and divisory exercises being more thoroughly learnt by repetition, and also to give the pupils advanced from the Primary Schools the opportunity of drawing the first part of the grammar course. The blank pages will be employed for elementary designs during the second half of the school year.

FIFTH CLASS.

From September to February the practice of the pupils will be confined to geometrical drawing of definitions and simple problems, and elementary design on the blank pages; and from February to July, Freehand book No. 2, with designs in blank pages. The geometrical work and the design is to be accurately done by use of ruler and compasses;

but neither of these implements is to be used in the freehand practice.

FOURTH CLASS.

From September to February the pupils are to be taken through the Geometry book No. 2, the teachers employing blank paper in the book for exercises in design. As part of the latter the enclosing geometric forms should be dictated by the teacher, the pupils working from the oral description only.

From February to July the Freehand book No. 3 is to be begun and completed, with four elementary designs on the blank pages. In the fourth class the teacher should require some degree of accuracy in the geometrical problems and nicety in workmanship, both in the design and freehand sections of the course.

THIRD CLASS.

From September to February the geometry work of book No. 2 is to be reviewed, for the purpose of refreshing the memories of pupils who have not practised the work for six months, and also to prepare those pupils who have been advanced to the third class without working through book No. 2. Then Geometry book No. 3 is to be undertaken and finished by February. The time to spare is to be occupied by practising elementary design on the blank pages.

From February to July the Freehand book No. 4, together with exercises in design, is to be completed.

SECOND CLASS.

In the second class, geometrical drawing is not to be continued, but in its place model and object drawing is to be commenced. From September to February the pupils will begin and complete Model book No. 1, and from February to July the Freehand book No. 5 will be begun and finished, elementary design being continued on the blank pages, in outline and half tint. Dictation of geometrical forms is not to be considered a separate lesson, but part of the designing lesson. Memory drawing may be practised occasionally to vary the lessons in geometrical drawing.

FIRST CLASS.

In the first class, model and object drawing is to be considered the sole subject of drawing for the first half of the year, from September to February, and the course is laid down in the text-book to be used, Model book No. 2, to be completed by the end of January. The exercises are to be wholly by the freehand, and those from the solid to be in true perspective, tested by the eye.

From February to July the Freehand book No. 6 is to be drawn, the four blank leaves to be employed for designs, in half tint, of either historical ornament or conventionalized foliage.

HIGH SCHOOL.

THIRD CLASS, OR JUNIORS.

The lowest class in the High Schools is to be instructed in the elements of perspective, in Perspective book No. 1, and the practice of model and object drawing from the solid object, with applied design in blank books. The perspective and design to be worked out by mechanical means, the object drawing to be wholly freehand. The models to be shaded or relieved with half tint of different depths. Perspective from September to February. Model drawing and design from February to July.

SECOND CLASS, OR MIDDLE.

A further study of the principles of perspective drawing is to be followed by the second class in the first half of the year, book No. 2 being the text-book. This is to be supplemented during the second half of the year by model drawing from the object, and applied design for common objects or simple forms in either outline, half tint, or by shading.

FIRST CLASS, OR SENIORS.

Drawing of historical ornament from cast and copy, in tint and color. Original design for manufactures. Painting and drawing from nature. Machine drawing and building construction and architecture (in the boys' classes). Study of the human figure.

NORMAL SCHOOL.

Normal lessons in freehand, object, memory, geometrical and perspective drawing; course of elementary design.

WALTER SMITH,
Director of Drawing.

REPORT

OF THE

COMMITTEE ON MUSIC.

1876.

REPORT.

Ordered, That the Programme for Instruction in Music for the Primary and Grammar Schools be referred to the Committee on Music, with instruction to revise the same, and report to the Board in print.

JUNE 13, 1876.

In accordance with the above order the Committee on Music respectfully submit the following revised Programme of Instruction in Music in the Primary, Grammar and High Schools, and recommend its adoption for the ensuing year. This programme is essentially the same as that hitherto followed with such marked and universally acknowledged success in the public schools of this city. An important change is, however, proposed in the Primary Department, to which attention is called. The Primary Schools have hitherto been visited nominally once a month by the Special Instructors, whereas now they are to be visited once in three months, on fixed days and at stated hours. At these tri-monthly visits the work done will be examined, new work will be laid out, and necessary advice given. This minimum of supervision is absolutely necessary, in order to ensure constant care and attention on the part of the regular teachers.

As your committee deem it most advisable that they should be kept fully informed as to the regularity of the Special Instructors in the performance of their duties in schools of all grades, they propose to supply each one with a printed time-table, and to send a duplicate of the same to every master. The dates of visits paid, and lessons given, being marked by each instructor and each master; the tables are to be sent to the Music Committee once in every three months, thus putting them in possession of the facts of the case.

On behalf of the Committee,

CHARLES C. PERKINS,
Chairman.

JUNE, 1876.

DEPARTMENT OF MUSICAL INSTRUCTION.

Plan of Instruction and Duties of the Special Instructors in Music.

PRIMARY SCHOOLS.

Sixth Class. — Pupils shall be taught to sing *by rote* all the songs and exercises in the first fourteen pages of the "First National Music Reader," and also to sing the scale, ascending and descending, both by numerals and syllables. Other songs by rote, at the discretion of the teacher. All the songs and exercises going beyond twice marked E, shall be transposed *at least one tone lower.* Attention shall be given to correct position of the body, and clear and distinct enunciation.

Fifth Class. — Review of the previous work. Signs of expression, time, and beating time. In-

struction in notation, as indicated on Chart No. 2, according to the "Illustrated" Lessons I. to VII. Use of syllables and numerals. Practise in writing the staff, bass-cleff, the repeat, etc. Rote songs, as selected by the teacher.

Fourth Class.—Review of previous work; then go to the end of Chart No. 12, carefully instructing the pupils according to "Illustrated" Lessons XV. to XXI., inclusive. Rote songs, on pages 15, 16 and 17, and others, to be selected by the teacher. Practise writing notes of different values, and combine them into measures.

Third Class.—Review of previous work, and advance in Charts to end of No. 15. Frequent exercise upon the sound of the scale by numerals, pitch-names or syllables. Songs, at teacher's option. Practise in writing degrees of the scale under dictation.

Second Class.—Review of previous work. Advance to end of No. 20. Continued scale-practice both by singing and by writing under dictation. Rote songs, at discretion of the teacher.

First Class.—General review. Then take Charts from 21 to 36, inclusive. Rote songs, to be selected by the teacher. Practise writing scales in different keys.

N. B.—The teacher should not permit loud and noisy singing, or the singing of parts not within the scholar's *easy* reach. The teachers in the various grades must carefully ascertain and record the compass of the pupils' voices.

GRAMMAR SCHOOLS.

Sect. 233 of the Rules and Regulations: —

"In the first and second classes instruction in vocal music shall be given in two lessons, of half an hour each, and in the third, fourth, fifth and sixth classes, in four lessons, of fifteen minutes each, every week, by the regular teachers; and vocal music shall be in all respects regarded as one of the regular studies of the school."

Sixth Class. — Music Charts (Second Series). Practice exercises and songs in the first twenty pages of the Charts, and also those in the first thirty-three pages of the Second Music Reader. Practice in writing continued. Attention should be given to evenness and purity of tone.

Fifth Class. — Review work of sixth class. Take the reversed side of Charts from No. 21 to 40, inclusive, and practise the Chromatic Scale with syllables, scale and pitch names. Songs at the option of the teacher. Practise in writing both diatonic and chromatic scales. Directions given how and when to breathe. Avoidance of audible breathing.

Fourth Class.—Third series of Charts. Knowledge of scale and staff intervals. Singing in different keys up to three sharps and four flats, by numerals, pitch names and syllables. Practice of the first twenty numbers of these Charts, and also of the first 22 pages of the Third Reader.

Third Class. — The class is to commence with the reverse pages of the Third Series of Charts, and complete them. Songs at the option of the teacher, includ-

ing all the keys as far as E and A flat major. Practise in writing, transposition of songs, or parts of songs, from one key to another. Vocal culture continued.

SECOND AND FIRST CLASS.

Fourth National Music Reader. These classes are to be taught the Solfeggios in this Reader from page 50 to page 78.

These Solfeggios should be practised by syllables, scale and pitch names.

The piano should be used as little as possible during the practice of the Solfeggios.

The exercises in Triads from page 79 to 84 are to be practised simultaneously with the Solfeggios and the parts are to be frequently changed.

Songs at the discretion of the teacher, but with strict exclusion of rote-singing.

Writing exercises, such as transpositions, etc., are to be continued in these classes.

HIGH SCHOOLS.

The High School Music Reader is the text-book for both Mixed and Boys' High Schools.

Muller's Part Songs are used in the Girls' High School.

First Year, or Junior Class. — Practice in singing at sight. Instruction in Musical theory, the intervals and writing of scales, in both the G and F clefs. Study of the various forms of the Minor Scale. Writing under dictation. Explanation of musical

terms in common use. Vocal culture and study of Part Songs.

Second Year, or Middle Class. — Continued practice of singing at sight. Inversion of intervals. Writing under dictation. Musical expression. Management of the voice. Study or Part Songs.

Third Year, or Senior Class. — Elementary harmony. Major and Minor Triads, and their inversions. Chord of the Seventh and its inversions. Practise in writing out simple figured basses. Study of Part Songs and analysis of the same.

REPORT

OF THE

COMMITTEE ON HIGH SCHOOLS.

1876.

REPORT.

The Committee on High Schools respectfully submit the following report: —

All the schools under their charge have maintained their usual high standing and efficiency. The adoption of the new rules and regulations necessitated some changes in teachers, which took place at the beginning of the present school year. The loss of an experienced master in the Charlestown High School it was feared would result seriously, but the committee were fortunate in securing the services of highly accomplished lady teachers, and it is confidently believed that the school was never in better condition, or capable of doing better work, than at the present time.

The resignation of Dr. Samuel Eliot as head-master of the Girls' High School was deeply regretted by all the friends of the school, and especially by the committee, upon whom devolved the responsibility of selecting a successor. After the most careful consideration and extended inquiry, the choice fell upon Col. Homer B. Sprague, an accomplished scholar, a gentleman of high culture, and a popular and successful teacher. The number of teachers allowed to each school being governed by the number of pupils, it was necessary to discharge two assistant teachers in this school, and the number of pupils has not as yet

been increased so as to compel us to fill their places.

The committee found upon entering on their duties that both the course of study and the text-books used in the various High Schools differed essentially, and that it was quite impracticable for the Supervisors to comply with the rules and regulations in the matter of uniform examinations. It became necessary to revise the whole system of High School instruction and to fix upon a uniform course of studies to be followed in all. This duty was attended with great labor, in which the committee had the efficient aid of the Supervisors. The classes received at the beginning of the present school year in the English High for boys, the Girls' High, and the Roxbury High, the Dorchester High, the West Roxbury High, the Brighton High, and the Charlestown High, mixed schools, entered upon a uniform three years' course, as follows: —

UNIFORM THREE YEARS' COURSE FOR HIGH SCHOOLS.

(See Note *a*.)

FIRST YEAR.

English and History. — Five hours till March 1st. Three hours after March 1st. English: (1) Brief accounts of certain authors, with the study of some of their best works. (2) Reading aloud, reciting or speaking selections in prose and poetry from the

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NOTE *a*. — Five sessions a week, divided into twenty-five hours of working time, such "hours" being about fifty minutes long, to allow time for recesses. Five hours a week (one daily) reserved for study, in first and second years; four hours reserved in the third year. One hour a week given to music. Two hours a week given to drawing. Two hours a week given to military drill (boys) — calisthenics (girls). Fifteen hours a week given to recitation in first and second years; sixteen hours in third year.

authors. (3) Elementary exercises in writing English, including practical applications of Grammar. Ancient History. (See note *b*.)

Languages. — Five hours till March 1st. Three hours after March 1st. Latin or French, or German. (See note *c*.)

Mathematics. — Five hours. Arithmetic, including practical instruction in the Metric System, and an introduction to Geometry (one hour). Algebra (four hours).

Sciences. — Four hours after March 1st. Botany.

SECOND YEAR.

English and History. — Four hours. English: (1) Brief accounts of authors, etc., as first year. (2) Reading aloud, etc., as first year. (3) Principles of rhetoric and their application to writing English, with exercises to increase the vocabulary. Mediæval History. Modern History begun.

Languages. — Three hours. The same language, continued.

Mathematics. — Five hours. Algebra finished. Plane Geometry and Plane Trigonometry. Book-keeping.

Sciences. — Three hours. Physics.

Electives. — Botany continued instead of Book-keeping. (See note *e*.)

THIRD YEAR.

English and History. — Five hours. English: (1) Selections from Milton and Shakespeare studied critically. (2) Reading aloud, etc., as before. (3) Writing Essays. Modern History. Civil Government.

Languages. — Four hours. The same language, continued (one

NOTE *b*. — In the opinion of the Supervisors, a course of History, for the High School, should be philosophically arranged, though it must necessarily be brief. It should trace the successive steps in the development of nations, with their progress in civilization, and should associate the geography of a country with its history. This plan, however, does not preclude the proper recognition of the relation between the history and literature of a period, as pupils pursue their study of *English*. By their previous course in the History of England and of the United States, in the Grammar Schools, they should be prepared to perceive and to follow out this important connection.

hour). Latin, French or German begun (three hours). (See note *c.*)

Mathematics. — Two hours. Solid Geometry. Arithmetic reviewed, considered as a science.

Sciences. — Five hours. Physics (two hours). Chemistry (two hours). (See note *d.*) Descriptive Astronomy (one hour).

Electives. — Zoölogy (including Human Anatomy and Physiolgy) instead of Mathematics. (See note *e.*)

It is thought advisable to proceed to organize a fourth year's course in the two great central schools, one for girls and another for boys, so that the graduates of all the outlying High Schools can enter without any break or interruption and pass through a thorough advanced course of instruction preparatory to entering the Normal School or the Institute of Technology. This fourth year's course is now under consideration; but the committee are not as yet prepared to submit it for adoption.

Mr. Augustine M. Gay was elected, after very mature deliberation, as head-master of the Latin School, in place of Dr. Francis Gardner, deceased. During the year in which he had acted as head-master previous to his election, the school manifestly improved in tone and prosperity, and the promotion to the head-mastership appeared to be due to Mr. Gay, in consid-

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NOTE *c.* — The choice of a language must be subject to the approbation of the Principal.

NOTE *d.* — One study-hour will be used in the Chemical Laboratory.

NOTE *e.* — Wherever a choice of studies is offered, a pupil cannot take the elective without the approbation of the Principal. All boys who intend to take a fourth year's course in the English High School will be required to take the full mathematical course. *All* members of the English High School may be required to take Solid Geometry and Book-keeping.

eration of his long and faithful service as master. But his health had become seriously impaired, and with the exception of a few visits to the school in the early part of September, he can hardly be said to have entered upon his duties, when death again left a vacancy in the head-mastership, and Mr. Moses Merrill was appointed acting head-master, till otherwise ordered.

The committee found that the course of study in this school required a thorough revision, and having been instructed by an order of the Board "to consider the expediency of abolishing the preparatory classes in the Latin School, and also of placing that school and the English High School under the same head-master," the whole subject was carefully considered, and the results laid before the Board in the following

REPORT.

The "preparatory classes," so called, consist of the seventh, eighth and ninth, according to the present organization of the school. The minimum age of admission at the present time is 9 years. The average age of the pupils of the three classes is above 13 years, and the number under 10 is but six.

The history of this school dates back to the early infancy of the colony of the Massachusetts Bay, to a period anterior to the founding of Harvard College, and for a hundred years or more it was regarded, according to the expressive language of Prince, as "the principal school of the British colonies, if not in all America." At many periods of its history the age

of admission has varied from 9 to 12. In the early part of the last century it was 9 years. In 1820, also, it stood at 9 years, and the course of study appears to have been limited to 8 years. In 1846, when the age of admission stood at 10 years, 71 pupils entered the school, of whom 26 went through. From 1847 to 1851 inclusive, when the age of admission stood at 12 years, the average number admitted was 37, of whom an average of 15 went through. In 1852, when the age of admission stood at 10 years, 107 pupils entered, of whom 38 went through. In 1869, when the age for admission still stood at 10 years, 93 pupils entered, of whom 23 went through. In 1870, when the age of admission was again fixed at 12 years, only 12 pupils entered, of whom only 5 remained at the time of Dr. Gardner's decease. In 1873–74, four classes having entered since the age was raised to 12 years, there were in all the school only 35 graduates of the Grammar Schools. When the age of admission was again lowered to 9 years, in 1874, 254 entered the school, of whom 99 still remain.

These striking facts indicate that parents who intend to send their sons to college wish to have them begin a systematic course of preparation at an early age, believing, no doubt, that there is greater economy of time and mental energy in entering directly upon a broad, generous, and carefully elaborated course of study, at a time when the forms, the rules, and vocabularies of a strange language — the indispensable foundations of linguistic culture — are most easily and indelibly impressed upon the youthful memory. It must be admitted, we think, that the scanty results

which classical training in this country can present are largely due to that system of hasty cramming for admission to some college, as a part of an ill-directed course of preparation in which the mutual relation of the different studies, and the order in which they would most logically and properly succeed each other, have been ignored. A thoroughly matured and comprehensive system, arranged according to the natural interdependence of all its parts, ought to leave an impression never to be lost or forgotten in after life. It ought to produce more tangible and satisfactory results in American scholarship than we generally see.

The figures already presented also indicate that parents, when forbidden to send their boys to the school before the age of twelve, have sent them at an earlier age to private schools, and that when their associations are once formed there, they remain and complete their preparation in such schools, and never enter the Latin School. They do not remain, as a general rule, in the public schools. The course of studies in the Grammar Schools cannot and ought not to be arranged with reference to special preparation for the Latin School. The Grammar-School course is essentially a preparatory course; but it is preparatory to the English High,— a finishing school, —rather than to the Latin, which is itself also a preparatory school.

The most common objection urged against the organization and continuance of these lower classes is, that they draw from the Grammar Schools a considerable portion of what some teachers regard as

their best material, and that the high tone of character of the upper classes of the Grammar Schools is lowered in proportion to this withdrawal. This objection ought to be regarded as too trivial to have any weight; for, to say nothing of the fact that the schools are made and maintained for the highest good of the children, and that no boy ought to be retained a moment in any Grammar School after it is for his interest to leave, most of those who are to prepare for college would be taken out and sent to private schools, before completing the Grammar-School course, if the primary classes in the Latin School were abolished. As the primary classes in the Latin School now stand, over twenty-five per cent. of the number of pupils come from private schools, and the balance from the various Grammar Schools. A reference to the following table will show how slightly they interfere with any particular Grammar School, by giving the number from each:—

SCHOOLS.	Class VII., A.	Class VII., B. and Class VIII., A.	Class VIII., B.	Class IX.	Total.
Chapman	..	3	1	1	5
Lyman	..	1	1	..	2
Harvard	..	..	2	..	2
Prescott, East Boston	..	..	1	..	1
Warren	..	..	..	1	1
Bowdoin	..	..	..	3	3
Eliot	1	..	..	1	2
Mayhew	..	1	3	1	5
Phillips	2	..	4	5	11
Brimmer	5	8	3	4	20
Dwight	..	1	2	2	5
Rice	11	7	6	3	27
Bigelow	2	..	2	1	5
Lawrence	1	1	..	1	3
Lincoln	4	1	1	..	6
Comins	..	1	..	..	1
Dearborn	..	1	..	..	1
Lewis	1	..	..	..	1
Lowell	..	..	..	1	1
Bennett	..	..	..	1	1
Central	1	3	2	2	8
Everett, Dorchester	1	1	2	2	6
Gibson	1	..	..	..	1
Minot	1	2	..	..	3
Private Schools	9	7	10	5	31
Other sources	1	6	2	2	11
Total	41	44	42	36	163

$25\frac{125}{163}$ % came from other sources than Public Schools.
$74\frac{38}{163}$ % came from Public Schools.

It should be borne in mind, also, that notwithstanding the fact that 9 is recognized as the age at which pupils can be admitted to the lower classes, the actual age of most of the pupils in the Primary classes is very much higher, as will appear by the following table: —

AGES OF PUPILS IN VII., VIII. AND IX. CLASSES OF LATIN SCHOOL.

AGES.	Class IX.	Class VIII.	Class VII.	Total.
9-10	5	1	. .	6
10-11	8	7	4	19
11-12	10	12	3	25
12-13	7	19	14	40
13-14	4	13	9	26
14-15	. .	10	15	25
15-16	1	7	12	20
16-17	. .	. .	1	1
17-18	. .	. .	1	1
Totals	35	69	59	163

The average age even of the 9th class is above 12 years. About 95 per cent. of the pupils of these classes have entered with the declared intention of going through and preparing for college. Of the 35 in the 9th class 34 answered yes, to the question upon this point, and one no. Of the 69 in the 8th class 60 answered yes, and 9, no. Of the 59 in the 7th class 55 answered yes, and 4, no. Most of those who do not intend to go to college will probably go through

the school, their parents believing that some knowledge of the languages will form a useful part of an education for a business life.

The committee are unanimously of the opinion that the interests of the school and of the community require that the Primary classes should be retained; but whether the minimum age for admission should be continued at 9 years, or fixed at 10, is a matter of little importance practically, the number of pupils under 10 being so few that they might properly enough be regarded as exceptional, and admitted or not at the discretion of the committee or of the School Board.

But the committee are equally united in the opinion that if these classes are to be retained the programme or plan of studies should be essentially modified. The chief argument for admission at an early age is that a child from 9 or 10 to 12 years of age can learn or begin to learn a language easier and with greater economy of time than a boy at the age of 12 to 15. The memory is more readily trained, and the forms of a new language more easily learned and retained at an early age. But, so far from conforming to this idea, the present course of study is so arranged as to give but two exercises a week in Latin; one hour for study and one hour for recitation, being all that is allotted to this language. Stated more fully, the time devoted to the various studies throughout the school appears in the following table: —

Studies pursued in the Latin School, with Relative Time given to Each.

STUDIES.	CLASSES.								
	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	IX.
Latin	6	7	7	6	10	11	2	2	2
French	2	3	3	3	3	. .	1	1	1
Greek	7	6	7	6	. .	. .	. .	. .	. .
Mathematics	6	5	4	4	6	4	6	6	6
English Literature	2	2	2	2	2	2	. .	. .	. .
History	2	3	2	2	2	2	2½	. .	. .
Natural Science	2	1	1	1	1	. .	. .	. .	. .
Penmanship	. .	. .	. .	. .	. .	4	1½	2	3
Drawing	. .	. .	1	2	2	1	2	2	2
Modern Geography	. .	. .	. .	. .	. .	2	4	4	2
Singing	. .	. .	. .	1	1	1	1	1	1
Reading	. .	. .	. .	. .	. .	. .	2	3½	5
Spelling	. .	. .	. .	. .	. .	. .	1½	3½	4
Composition	. .	. .	. .	. .	. .	. .	1	2	1
Gymnastics	3	3	3	3	3	3	2½	4	4
Military drill	2	2	2	2	2	2	2	2	2
Total Exercises per week	32	32	32	32	32	32	29	33	33

The "Exercises" in the above table occupy *from thirty to fifty minutes each.*

Compare this working plan of studies with that of the Prussian Gymnasium, which holds a place in the German system of education more nearly corresponding with that of the Latin School than any other in our system, — that is, a school preparatory to the university, — and mark the difference. The branches taught, with their allotted time devoted to

each, during a period of nine years, are presented in the following table, the first three classes beginning with the highest numbers, having one year each, and the last three, two years each, the pupils entering at the completion of the ninth year.

Instruction in the Gymnasium.

SUBJECTS.	Hours per week for each Class.					
	VI.	V.	IV.	III.	II.	I.
Religion	3	3	2	2	2	2
German	2	2	2	2	2	3
Latin	10	10	10	10	10	8
Greek	. .	. .	6	6	6	6
French	. .	3	2	2	2	2
History and Geography	2	2	3	3	3	3
Mathematics and Arithmetic	4	3	3	3	4	4
Natural Philosophy	. .	. .	. .	. .	. .	2
Natural History	2	2	. .	2	. .	. .
Drawing	2	2	2	. .	. .	. .
Penmanship	3	3	. .	. .	. .	. .

This may be taken, perhaps, as a fair average of the 250 gymnasiums in different parts of Germany, but they differ in minor details of the programme, which the director of each gymnasium publishes every spring with an enthusiastic rivalry to present the best plan, which, after approval by the Department of Public Instruction, becomes the working programme for the year. This difference will appear in the programme of the gymnasium of Schwerin, recently issued, Sexta, the lowest class, corresponding with

our Ninth, Quinta and Quarta occupying one year each, and the three upper classes two years each.

	Sexta.	Quinta.	Quarta.	Lower Tertia.	Upper Tertia.	Lower Secunda.	Upper Secunda.	Lower Prima.	Upper Prima.	Numbers representing proportion of time allotted to each.
I. Religion	3	3	3	2	2	2	2	2	2	21
II. Geography and History	4	3	4	4	4	3	3	3	3	31
III. Mathematics	4	3	4	4	4	4	4	4	4	35
IV. Natural Sciences	2	2	..	..	..	2	2	2	2	12
V. Latin	9	10	10	10	10	10	10	8	8	85
VI. Greek	..	..	5	6	6	6	6	6	6	41
VII. German	3	3	3	3	3	3	3	3	3	27
VIII. French	..	3	3	3	2	2	2	2	2	20
IX. Hebrew	..	..	..	..	..	2	2	2	2	8
Hours of weekly work in each Class	25	27	32	32	32	34	34	32	32	

If it is best to begin the study of a language like Latin or French at a very early age, as it undoubtedly is, it should become a very much more prominent feature of the early part of the course, even if some essential English branches have to be deferred to a later period of the course. Very much of the first work of learning a new language depends upon the acquisition of forms, and the inflections of words and the vocabulary, and this is much more easily accomplished at an early age than later in the pupil's school-life. The first year will in any event be divided between the Latin language and the elementary English branches, but the progress actually and generally made in these English studies during this first

year, in addition to what is done in Latin, is much greater, and it always will be much greater, under wise management, than is made by boys of the same age in the Grammar Schools.

It is to be considered, also, that as the standard of scholarship required for admission to our colleges is constantly advancing, we are constantly obliged to produce better results in the Latin School, are forced not only to accomplish more work, but to raise the standard of admission to the higher classes. The pupils of the seventh class are now more advanced in their English studies than those formerly admitted to the school.

The committee find that the plan of studies, not only of the lower classes, but of the whole school, requires essential change. The course, as laid down in the Rules and Regulations, is quite impracticable. It has not been carried out, simply because it was wholly impossible to live up to it in the time allotted to the regular course. As the arrangement of a new course of studies must be regarded as of vital importance to the efficiency, the growth and prosperity of the school, the committee have not hesitated to seek the advice of the best educators in our midst, to whom they are greatly indebted for valuable suggestions, and especially to President Eliot, of Harvard College. A plan submitted by him was, by a misunstanding of the wishes of the committee as to the length of the course, based on the supposition that it would be limited to six years, and hence will require some modifications, which will be presented in the schedule to be given on a following page. It is,

however, so well considered, so comprehensive, and withal so practicable of accomplishment, that we venture to present it as furnishing the basis on which it is proposed to construct the working programme of the school.

COURSE OF STUDY FOR THE PUBLIC LATIN SCHOOL OF THE CITY OF BOSTON.

FIRST YEAR.

Latin. — Grammar; writing Latin; reader; vocabulary; Viri Romæ.

English. — Reading aloud (Scott, prose and poetry, Goldsmith); spelling; writing from dictation; recitations.

History. — Higginson's History of the United States.

Mathematics. — Arithmetic, reviewed and finished.

Geography. — Physical and political (ending May 1).

Botany. — From May 1.

Drawing. Penmanship. Music. Gymnastics.

SECOND YEAR.

Latin. — Nepos; Cæsar, books I.–IV.; writing Latin; vocabulary; writing from dictation; recitation.

English. — Reading aloud (Hawthorne, True Stories, and Wonder Books; Bulfinch's Age of Fable); spelling matches; writing from dictation; recitation (*e. g.* Macaulay's Lays of Ancient Rome.)

French. — Grammar; writing French; translation; vocabulary.

History. — History of ancient Greece (with the geography).

Mathematics. — Algebra (part of); in connection therewith examples in arithmetic.

Geography. — Physical and political (finished) to end May 1.

Botany. — From May 1.

Drawing. Music. Gymnastics.

THIRD YEAR.

Latin. — Ovid (4,000 lines); Æneid I.–III.; prosody; vocabulary; writing Latin; writing from dictation; recitation.

English. — Reading aloud (Irving, Prescott, Burke); recitation; (Gray, Longfellow, Whittier); *good* translations from Latin, written out with care, and rewritten after correction, if necessary.

French. — Translation and writing; writing from dictation; vocabulary; recitation.

History. — History of ancient Rome (with the geography.)

Mathematics. — Algebra, continued, and finished by May 1, with large use of examples, particularly such as keep arithmetic in use.

Botany. — From May 1.

Drawing. Gymnastics.

FOURTH YEAR.

Latin. — Æneid IV.–VI.; Sallust (Catiline); writing Latin; recitation.

Greek. — Grammar; translation; writing Greek; vocabulary; reader begun.

English. — Reading in connection with the text-book in history; compositions on subjects read about.

French. — Translation and writing; recitation.

History. — History of England.

Mathematics. — Plane geometry; examples in arithmetic and algebra.

Zoölogy. — Morse's Zoölogy and Agassiz's Sea-side Studies.

Drawing. Gymnastics.

FIFTH YEAR.

Latin — Eclogues; Cicero (eight orations and Cato Major); writing Latin; Latin at sight.

Greek. — Goodwin and Allen's Reader; Homer's Iliad I.–III.; writing Greek; writing at dictation; prosody.

English. — Three plays of Shakespeare and selections from Milton carefully studied; compositions on subjects on which reading has been recommended.

French. — Translation; translation at sight; writing.

German. — Grammar; exercises; translation; vocabulary.

Mathematics. — Logarithms and trigonometry; with examples in arithmetic, algebra, and geometry, during the first half of the year.

Mechanics. —With examples applying arithmetic, algebra, geometry and trigonometry, during the second half of the year.

Reviews. — Two days of the week in the last half of the year devoted to reviews and to practice on examination papers.

Drawing. Gymnastics.

SIXTH YEAR.

Latin. — Livy (two books); Horace (Odes and Epodes); Cicero (de amicitia, and de republica); writing Latin; translation at sight.

Greek. — Plato (Apology and Crito); Homer (Iliad IV.–VIII., or Odyssey IV. and IX.–XII.); Euripides (Alcestis); Xenophon at sight; writing Greek; recitation.

German. — Translation; writing from dictation; writing German; recitation.

History. — Duruy's modern History (in the French); Freeman's Outlines of General History.

Mathematics. — Solid Geometry; examples in navigation and surveying; plane and analytic geometry.

Physics. — Selections from astronomy; motions of liquids and gases; advanced mechanics (*i. e.* beyond last year's limit).

English. — Compositions on subjects on which reading has been recommended.

REMARKS UPON THE MODE IN WHICH IT IS INTENDED THAT THE SUBJECTS MENTIONED IN THE FOREGOING PROGRAMME SHOULD BE TAUGHT.

LANGUAGES.

1. Exercises in translating and writing a new language are to begin simultaneously with the study of its grammar.

2. A few (five to ten) words are to be committed to memory, with their meanings, at each lesson in translation. The principal parts of verbs, and the declension, etc., of nouns, are to be learned by heart in connection with the meaning of the words. Each pupil is to write down the words he learns, and these lists (best kept in a book) are to be reviewed and examined upon at stated intervals. The words should always be taken from the author in hand. This process is to go on steadily for each new language, until the ordinary vocabulary has been mastered. It is referred to in the programme by the title "vocabulary."

3. In the study of each language the exercise of writing in it from dictation is to be used statedly, beginning (except in the case of English) with the second year's course in the language.

4. In the study of each language, the exercise of committing passages to memory and reciting them to be used statedly, beginning with the second year's course in the language.

5. After the vocabulary has been in good degree mastered, translation at sight is to be frequently practised in each language, with the help of the teacher.

6. In studying English the pupils are to be exercised statedly in reading aloud (for three years), in spelling (for two years), in writing from dictation (for two years), in committing pieces to memory and reciting them (for three years), in writing out *good* translations from the Latin language (one year), in writing compositions upon subjects they have read

about (three years). They are also to read critically a little Shakespeare and Milton in the fifth year.

MATHEMATICS.

In studying algebra, arithmetic is to be reviewed and kept in use. While plane geometry is the main mathematical subject of the fourth year, time is to be allowed for weekly practice of examples in arithmetic and algebra. So in the fifth year, trigonometry is the main subject; but the preceding three subjects are to be kept up by practice on various examples.

SCIENCE.

Botany is to be taught in May and June of the first three years, with ample provision of seeds, plants, flowers, etc., so that every pupil may actually study and dissect the specimens. Zoölogy in the fourth year is to be taught in a similar manner, with ample illustration.

Mechanics is to be thoroughly illustrated before the pupils, not with diagrams, but with apparatus to give ocular demonstration of the facts and principles.

HISTORY.

Attention is to be called to all historical and geographical points in the classical and modern authors read, the text-books on history supplying the framework for these materials. Geography, ancient and modern, is to be so taught in connection with the history, in every year of the course, as to be kept in mind.

REMARKS UPON THE SIXTH YEAR'S COURSE.

1. The subjects studied in this year are chiefly those on which optional examinations are held at Harvard College; but to these subjects of voluntary examinations, history, German, physics, and English compositions are added. A boy who had completed the six years' course could enter at Harvard in Course I. *and* in Course II., with good preparation for winning honors either in classics or mathematics. Or a boy who needed to economize time might enter Sophomore.

2. Any bright boy in his fourth or fifth year may take any sixth year's subject which he is capable of pursuing, in addition to the regular work of his year. In this way the great evil of setting the standard of attainment for the average scholar or the dull scholar may be in a measure avoided.

The Board having voted to organize the school in eight classes, by Chap. XVIII., Sect. 266 of the new Rules and Regulations, this well-considered plan, designed for six years, requires some modification to bring it into conformity with the Rules. It has been taken as the basis of the following schedule. The committee consider it unwise to recognize a post graduate course, even for a year, both on account of the extraordinary expense which it would necessitate, and because the school is professedly designed to prepare boys for admission to Harvard or some other college. When that object is accomplished the mission of the school is fulfilled. The time and ability

of the head-master and of the other accomplished teachers belong to the regular classes of the school, and cannot be diverted from them without great detriment to the graduating, and perhaps to some of the lower, classes. The committee have, therefore, endeavored to incorporate such of the best features of the sixth year's plan of President Eliot, as appear practicable, in the regular course of studies. They present the following plan, and recommend its adoption by the Board: —

COURSE OF STUDY FOR PUBLIC LATIN SCHOOL.

FIRST YEAR.

Latin. — 1. Forms. 2. Translating into English easy Latin sentences and the Reader. 3. Vocabulary and turning English into Latin (sentences like those in the Reader).

English. — 1. Reading aloud from (1) Hawthorne's Wonder Book and Tanglewood Tales, and G. W. Cox's Tales of Ancient Greece; (2) Harriet Martineau's Crofton Boys; (3) Scott and Holmes's poems. 2. Recitation of poems selected from Scott and Holmes. 3. Exercises to secure (1) correct enunciation, (2) distinct articulation, (3) right accent. 4. Spelling words in common use and in the reading lessons. 5. Writing from dictation with special attention to (1) capitals, (2) punctuation, (3) paragraphs, and (4) the correct forms of nouns and pronouns to express gender, number, and case.

History. — (Reading Tales of Ancient Greece. [See "English."])

Geography, to end as early as March 31. — 1. Geikie's primer of physical geography (supplemented by oral instruction). 2. Principles of mathematical geography. 3. Explanation of geographical terms.

Natural Science, to begin as early as April 1. — Physiology: Macé's history of a mouthful of bread.

Mathematics. — Written arithmetic: 1. Review of the four fundamental rules. 2. Decimal and vulgar fractions. 3. Compound numbers (including the metric system). Mental arithmetic; parallel with the written.

Drawing. Music. Penmanship. Gymnastics and military drill.

SECOND YEAR.

Latin. — 1. Forms and syntax. 2. Viri Romæ. 3. Writing from dictation. 4. Vocabulary and turning English into Latin (sentences like those in Viri Romæ). 5. Recitation of Latin.

English. — 1. Reading aloud (1) some of Plutarch's lives of famous Greeks; (2) Tom Brown's School Days at Rugby, by Thomas Hughes; (3) Goldsmith's and Whittier's poems. 2. Recitations of poems selected from Goldsmith and Whittier. 3. Pronunciation (Soule's Hand-Book). 4. Spelling words in the lessons in reading and geography. 5. Writing from dictation with special attention to (1) punctuation, (2) syllabication, (3) correct forms of adjectives and adverbs to express comparison, and of verbs to express voice, mood, tense, number, and person.

History. — (Reading lives of famous Greeks. [See "English."])

Geography, to end as early as March 31. — 1. General physical features of the continents, with outline map-drawing. 2. Distribution of plants and animals, with their uses.

Natural Sciences, to begin as early as April 1. — Botany: Gray's How Plants Grow.

Mathematics. — Written arithmetic: 1. Percentage. 2. Reckoning of time. 3. Simple and compound interest. Mental arithmetic; parallel with the written. Geometry: Oral instruction in connection with the lessons in drawing to give the mind clear and distinct conceptions of form.

Drawing. Music. Penmanship. Gymnastics and military drill.

THIRD YEAR.

Latin. — 1. Forms and syntax. 2. Phædrus, and Justin's life of Alexander the Great. 3. Writing from dictation. 4. Vocab-

ulary and turning English into Latin (sentences like those of Justin). 5. Recitation.

English. — 1. Reading aloud (1) some of Plutarch's lives of famous Greeks; (2) Two Years Before the Mast, by Richard H. Dana, Jr.; (3) Byron's and Longfellow's poems. 2. Recitation of poems selected from Byron and Longfellow. 3. Exercises in elocution, with special attention to developing the voice. 4. Spelling words in the lessons in reading, geography, and natural science. 5. Writing from dictation, with special attention to (1) punctuation, (2) abbreviations, and (3) syntax (solecisms illustrated and corrected).

French. — 1. Forms and pronunciation. 2. At the outset, easy French translated into English, with help of teacher and dictionary (Contes des fées, par Perrault; or, Jean qui grogne, par Mme. de Ségur). 3. Vocabulary and turning English into French.

History. — (Reading lives of famous Greeks. [See "English."])

Geography, to end as early as March 31. — Physical, political and historical geography: (1) early condition of the inhabitants of the earth as to occupations and governments; (2) first step in civilization; (3) study of Greece, Italy, Spain and Portugal, Northern Africa and Islands of the Mediterranean.

Natural Sciences, to begin as early as April 1. — Botany: Gray's How Plants Grow. Reading of Gray's How Plants Behave.

Mathematics. — Written arithmetic: 1. Discount and present worth, and "problems" in interest. 2. Profit and loss. 3. Partnership and other simple applications of the principles of percentage. Mental arithmetic; parallel with the written. Geometry: Hill's First Lessons, supplemented by oral instruction. (Drawing lessons kept in view.)

Drawing. Music. Penmanship. Gymnastics and military drill.

FOURTH YEAR.

Latin. — 1. Forms and syntax. 2. Nepos's life of Miltiades, Themistocles, Aristides, Alcibiades, Epaminondas, and Hannibal. 3. Translation of Latin at sight. 4. Vocabulary and turning English into Latin (sentences like those of Nepos). 5. Recitation.

English. — 1. Reading aloud (1) some of Plutarch's lives of famous Romans; (2) De Foe's Robinson Crusoe; (3) Macaulay's Lays of Ancient Rome, Campbell's and J. R. Lowell's poems. 2. Recitation of Macaulay's "Lays," and of selections from Campbell's and J. R. Lowell's poems. 3. Exercises in elocution with special attention to improving the quality of the voice. 4. Spelling words in the lessons in reading, geography, natural science, and history. 5. (1) Punctuation (A. S. Hill's rules). (2) Writing abstracts o Plutarch's lives (abstracts to be criticised by the teacher and corrected by the pupil).

French. — 1. Forms, pronunciation, and syntax. 2. Translation into English (Robinson Suisse, par Wyss; or, Batavia, par Conscience). 3. Writing from dictation. 4. Vocabulary and turning English into French. 5. Recitation.

History. — History and geography of American Greece. (Reading lives of famous Romans. [See "English."])

Geography, to end as early as March 31. — (4) Study of France, Great Britain, Central and Northern Europe; (5) study of Russia and Russian possessions in Asia; Middle Asia, China, Japan, and India; (6) the Ottoman Empire — except the part in North Africa.

Natural Science, to begin as early as April 1. — Zoölogy; Morse's Zoölogy.

Mathematics. — Written arithmetic: 1. Ratio, simple and compound proportion (same examples worked by analysis). 2. Evolution. 3. Involution; square and cube root, with easy applications. Mental arithmetic; parallel with the written. Geometry: Lowell's Science of Form (first seventy pages or more).

Drawing. Music. Penmanship. Gymnastics and military drill.

FIFTH YEAR.

Latin. — 1. Forms, syntax and prosody. 2. Cæsar's Gallic War, I.–IV.; Ovid (2,000 lines). 3. Latin at sight. 4. Vocabulary and turning English into Latin (sentences like those of Cæsar). 5. Recitation.

English. — 1. Reading aloud (1) some of Plutarch lives of

famous Romans; (2) one of Scott's novels; (3) Gray's, Pope's, and Bryant's poems. 2. Recitation of poems selected from Gray, Pope, and Bryant. 3. Exercises in elocution, to secure natural and correct expression. 4. Spelling words in the lessons in reading, geography, natural science and history. 5. Writing abstracts of Plutarch's Lives (abstracts to be criticised and corrected).

French. — 1. Forms, pronunciation and syntax. 2. Voltaire's History of Charles XII. 3. Writing from dictation. 4. Vocabulary and turning English into French. 5. Recitation.

History. — History and geography of Ancient Rome. (Reading lives of famous Romans. [See "English."])

Geography, to end as early as March 31. — (7) Study of America (early settlements); (8) United States, and other countries of North America.

Natural Sciences, to begin as early as April 1. — Zoölogy; Morse's Zoölogy and Agassiz' Sea-side Studies (supplemented by oral instruction.)

Mathematics. — Arithmetic: Reviews and examples. Algebra: 1. Tower's intellectual. 2. Written algebra, begun. Geometry: Oral instruction aiming to develop the power of discovering truths and proving propositions. (No text-books allowed.)

Drawing. Gymnastics, and military drill.)

SIXTH YEAR.

Latin. — 1. Forms, syntax, and prosody. 2. Ovid (2,000 lines); Sallust's Catiline. 3. Latin at sight. 4. Vocabulary and turning English into Latin (sentences like those of Sallust). 5. Recitation.

Greek. — 1. Forms and syntax. 2. Translating into English easy Greek sentences, and part of the reader or of the Anabasis. 3. Vocabulary and turning English into Greek (sentences like those in the Reader or the Anabasis).

English. — 1. (1) Translating aloud Ovid and Sallust at the recitation in Latin; (2) reading through (but not aloud) a few speeches or orations of Webster and Fox, and reading from Prescott's and Irving's works; (3) also from Tennyson's and Wordsworth's poems. 2. Recitations of poems selected from Tennyson

and Wordsworth. 3. Speaking pieces from Webster's and Fox's speeches or orations, and reading aloud extracts from Prescott's and Irving's works. 4. Good translations from Latin, written out with care, and, if necessary, re-written after correction.

French. — 1. Forms, pronunciation, and syntax. 2. Duruy's history or a part of Guizot's history of France. 3. Reading French at sight. 4. Vocabulary and turning English into French. 5. Recitation.

History. — History of Germany and France, with a review of their geography. [See "French."]

Geography, to end as early as March 31. — (9) Study of South America, West Indies, etc.; (10) Africa, except Northern; (11) Australia and Pacific islands. — Reviews.

Natural Sciences, to begin as early as April 1. — Botany: Gray's School and Field-Book.

Mathematics. — Arithmetic: 1. Reviews and examples. 2. Duodecimals. 3. Circulating decimals. 4. Series (also in algebra). Algebra: Written algebra finished and reviewed. Geometry: The first nine chapters of Pierce's, or their equivalent in Chauvenet's.

Gymnastics and military drill.

SEVENTH YEAR.

Latin. — 1. Forms, syntax, and prosody. 2. Virgil's Æneid I.–VI. and Eclogues. 3. Latin at sight. 4. Vocabulary and turning English into Latin. 5. Recitation.

Greek. — 1. Forms and syntax. 2. Translating a part of the reader or of the Anabasis. 3. Writing from dictation. 4. Vocabulary and turning English into Greek (sentences like those in the Reader or the Anabasis).

English. — 1. (1) Translating aloud Virgil and Sainte-Beuve at the recitations in Latin and French; (2) reading through a few of Everett's and Pitt's speeches or orations, and reading from Addison's and Steele's essays; (3) selections from Milton, critically studied. 2. Recitation of selections from Milton. 3. Speaking pieces from Everett's and Pitt's speeches or orations, and reading aloud extracts from Addison's and Steele's essays. 4. Writi

translations from French and Latin, and writing compositions on subjects read about.

French. — 1. Forms, pronunciation, and syntax. 2. Selections from Sainte-Beuve. 3. Reading French at sight. 4. Vocabulary and turning English into French. 5. Recitation.

German. — 1. Grammar and exercises. 2. Translation. 3. Vocabulary and turning English into German.

History. — History of England, with a review of its geography.

Mathematics. — Arithmetic: 1. Reviews and more difficult examples. 2. Equation of payments. 3. Mensuration. Algebra: Reviews and examples; application of algebraic forms to arithmetic. Geometry: Plane geometry, finished and reviewed.

Gymnastics and military drill.

EIGHTH YEAR.

Latin. — 1. Forms and syntax. 2. Cicero (eight orations and Cato Major). 3. Latin at sight. 4. Vocabulary and turning English into Latin (sentences like those of Cicero). 5. Recitation.

Greek. — 1. Forms, syntax and prosody. 2. Translation of the Reader or of the Anabasis, completed. 3. Homer (Iliad I.–III.). 4. Translation of Greek at sight. 5. Vocabulary and turning English into Greek (sentences like those in the Reader or the Anabasis). 6. Recitation.

English. — 1. (1) Translating aloud from the Greek, Latin and French authors at the regular recitations; (2) reading through a few of Sumner's and Burke's speeches; (3) three plays of Shakespeare, carefully studied. 2. Recitation of selections from Shakespeare. 3. Speaking pieces from Sumner's and Burke's speeches. 4. Writing compositions.

French. — 1. Forms, pronunciation, and syntax. 2. Selections from Taine's English Literature. 3. Reading French at sight. 4. Vocabulary and turning English into French. 5. Recitation.

German. — 1. Translation. 2. Writing from dictation. 3. Vocabulary and turning English into German. 4. Recitation.

History. — 1. History of United States, with a review of its geography. 2. General review.

Mathematics. — 1. Logarithms and plane trigonometry; with examples in arithmetic, algebra and geometry, during the first half

of the year. 2. Mechanics, with examples applying arithmetic, algebra, geometry, and trigonometry, during the second half of the year.

Gymnastics and military drill.

N. B. — Two days of the week in the last half of the eighth year will be devoted to reviews and to practice on examination questions.

SUPPLEMENTARY STUDIES.

Latin. — 1. Livy (two books); Horace's Odes and Epodes; Cicero de Amicitia and de Republica. 2. Latin at sight. 3. Turning English into Latin. 4. Recitation.

Greek. — 1. Plato (Apology and Crito); Homer (Iliad IV.–VIII., or Odyssey IV. and IX. to XII.). Euripides (Alcestis). 2. Xenophon at sight. 3. Writing Greek. 4. Recitation.

English. — 1. (1) Translating aloud from the Greek, Latin and French authors at the regular recitations; (2) translating a few of Cicero's Philippics; (3) the study of Shakespeare continued. 2. Recitations of selections from Shakespeare. 3. Speaking pieces from the translated Philippics of Cicero. 4. Writing compositions.

French. — Racine and Molière. 2. Reading French at sight. 3. Vocabulary and turning English into French. 4. Recitation.

German. — 1. Translation. 2. Writing from dictation. 3. Vocabulary and turning English into German. 4. Recitation.

History. — General history: Studied by periods.

Natural Sciences. To begin as early as April 1. — Physics: 1. Selections from astronomy. 2. Motions of liquids and gases. 3. Advanced mechanics (*i. e.*, beyond last year's limit).

Mathematics. — 1. Solid geometry. 2. Examples in navigation and surveying. 3. Plane and analytic geometry.

With regard to the second part of the order, by which we were instructed to consider the expediency of consolidating the Latin and the English High Schools under one head-master, the committee are

equally unanimous in opinion. The functions of the two schools are quite different. The Latin School, as we have shown, is essentially a preparatory school. It has always been regarded as such, and as such, in times past, it gained a high and well-deserved reputation as one of the first and most efficient institutions in America. No one will have the hardihood to maintain that such a school is not needed, or that, in the main, it has not nobly and honorably accomplished its mission, and proved itself to be a priceless blessing to this community.

The English High School, on the other hand, is essentially a finishing school. Its graduates, with comparatively few exceptions, enter directly upon the practical business of life; its function is to supplement and round off, so to speak, the more elementary education of the Primary and the Grammar Schools. It had its origin at Faneuil Hall, on the 15th of January, 1821, in a nearly unanimous vote of the "free-holders and other inhabitants of the town of Boston;" and since then its pride and its crowning glory has been to give to the young men of this city an education that shall fit them for eminence in their profession, whether mercantile or mechanical. This object it has accomplished, on the whole, remarkably well, as the long list of its graduates, many of them the most prominent men in all the practical walks of life in our midst, will abundantly testify. No one will pretend that such a school, founded to meet the educational wants of the people, is not needed now as much as it ever was in the past.

To consolidate these two great schools, whose

objects and traditions are so radically different, could not have the approval of the intelligent public opinion of this city, nor could it serve any good purpose. As a measure of economy it would certainly fail, since the cost of maintaining a consolidated school in anything like the requisite efficiency would be very nearly, if not quite, as great as that of maintaining the present separate organization of the two schools. To suppose that the distinct and independent objects of the schools could be better accomplished in a consolidated school is not only contrary to reason and to the well-established principles of educational economy, but to the experience of the most enlightened educational systems of Europe and of this country. The union system can be justified only on the ground of a want of means to maintain the separate system, now almost universally admitted to be the only true system. In a small town, where the means are limited and the number of pupils comparatively small, the union system may be a necessity. It has been repeatedly tried in Europe and abandoned as soon as the means of the community have enabled them to maintain something better.

In consolidating the two schools under one head the courses of study now pursued in separate organizations would either be united in one, in whole or in part, or they would still be pursued as separate and comparatively independent courses. The first proposition would clearly be wholly unphilosophical, considering the distinct and separate aims and objects of the two schools. The second would involve the necessity of appointing a competent head or principal

for each, with a superintendent or director of the whole establishment, — such a man as it would be extremely difficult to find. We all know how difficult it is to find a thoroughly competent principal entirely fitted for either of these great schools; but there are a score of men capable of filling either position honorably and well to one capable, in all respects, of assuming a position at the head of one combined institution. The best and ablest of men would naturally lean either towards the classical course, when the scientific course would be likely to suffer; or else towards the sciences, when the classical course would equally suffer.

It is to be considered, also, that the number of pupils in a High School ought never to exceed the limit at which the proper influence of the head-master over them, individually, ceases to be effective. A good man ought to impress himself strongly upon the whole school, — the more strongly the better. This personal influence will have very much to do with the formation of individual character, and is of the highest importance, intellectually and morally. It is plain enough that it will be diluted and weakened in proportion to the numbers in the school, and it is equally plain that the opportunities of exerting this influence in a public day-school cannot be compared with those enjoyed by a college president in this country, or by a head-master of a great public school in England.

The subject received the consideration of an able committee of the School Board in 1869, when Mr. Philbrick, the Superintendent of Public Schools, concluded his remarks before the committee by giving it

as his "opinion, which has been arrived at after as careful an examination of the whole subject as I am capable of making, that the consolidation of the schools under consideration would not prove a measure of true reform; that it would not be a step in the right direction; that it would be indeed a retrograde movement. The establishment of the English High School as a separate institution from the Latin School, with wholly different objects and aims, was a vast step of progress. Its wisdom has been fully justified, not only by the success of the school itself, but by the almost universal failure of the union system. To merge these schools, now, in one institution would, in my judgment, deprive the public-school system of the city of one of its most valuable features."

This report was accepted, and the course of studies adopted. The Latin school was organized in accordance with it at the beginning of the present school year in September.

The great drawback to this school and to the English High is the want of suitable accommodations. The building on Bedford street is wholly inadequate to the requirements of these two great schools, and neither can enter upon a period of growth which will ensure its highest prosperity and usefulness till new buildings are provided. The want of room is not the only source of anxiety to the committee. Numerous classes are colonized at considerable distances from the main building, necessitating great loss of time on the part of teachers and of pupils in going to and fro through crowded streets in school hours, while the

entrance to all the upper rooms for both schools is dark, dismal and dangerous. Neither the committee nor the School Board is responsible for this state of things. The wants of these great schools have been repeatedly urged upon the city government during the last twelve years, but without avail. Neither interest in educational matters, nor a decent pride for the honor and credit of the city, has offered a sufficient motive to induce the authorities to take active steps to remove this disgrace, and the schools will have to endure some years longer.

For the Committee,

CHARLES L. FLINT,
Chairman.

BOSTON, September, 1876.

REPORT

OF

COMMITTEE ON EVENING SCHOOLS.

1876.

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The Committee on Evening Schools have great pleasure in reporting the favorable condition of the schools, with an excellent corps of instructors and harmony of feeling and action between teachers and scholars; good progress has been made.

The instruction as usual is with few exceptions individual, which necessarily requires a larger number of teachers than if the schools were classified.

A large number of those attending these schools belong to that class who are especially in need of school advantages, who have attended school only a few weeks during the year; and many of those over fifteen have never been connected with any school.

There is need of more persistent effort to secure the attendance of all the children of the city (who do not attend the day school), at least a portion of the year.

In these schools the teachers should particularly study carefully the mental peculiarities of each individual, otherwise the process of instruction may be wearisome to the teacher and the pupil, and exhausting to the patience of each.

The Evening High School, although showing no considerable gain over the previous year in the number of pupils in attendance, has fully maintained its excellent reputation.

In this school, by reason of a thorough system of classification, the average number of pupils to a teacher is much larger than is possible in the elementary schools. Instruction is given on the departmental plan, and the course of study is as shown upon the accompanying programme.

WARREN FLETCHER,

Chairman.

NAME OF APPLICANT.....

Programme of Studies at the Evening High School for the Session of 1875-6.

N. B.—Applicants are directed to select their studies from the following list, and to study carefully (1) and make themselves fully acquainted with the directions at the end.

Pupils belonging to this school are not allowed to open the desks in any room in the building for any purpose whatever.

STUDY.	HOUR.	DAYS.	TEACHER.	ROOM.
Elementary Book-keeping, Div. I. . (2)	7—8	Tues. and Thurs.,	Mr. Adams.	No. 9.
" " " II. . .	7—8	Mon., Wed., Fri.,	" Moriarty.	" 6.
" " " III. . .	8—9	" " "	" Owen.	" 4.
" " " IV. . .	8—9	" " "	" Adams.	" 9.
" " " V. . .	7—8	Tues. and Thurs.,	" Babson.	" 8.
" " " VI. . .	8—9	" " "	" "	" 8.
Advanced " . . . . (3)	7—8	" " "	" Owen.	" 4.
English Literature	7—8	Mon., Wed., Fri.,	" Babson.	" 8.
Elementary Arithmetic, Div. I. . . (4)	7—8	" " "	" Adams.	" 9.
" " " II. . . .	8—9	" " "	" Babson.	" 8.
" " " III. . . .	8—9	Tues. and Thurs.,	" Moriarty.	" 6.
El. Grammar and Composition, Div. I.	7—8	Mon., Wed., Fri.,	" Dean.	" 11.
" " " " " II.	8—9	Tues. and Thurs.,	" "	" 11.
Adv. " " " . . .	8—9	Mon., Wed., Fri.,	" "	" 11.
Elementary French, Div. I.	7—8	" " "	" Stetson.	" 3.
" " " II.	8—9	" " "	" "	" 3.
" Latin	7—8	Tues. and Thurs.,	" "	" 3.
Advanced Latin (Virgil and Cicero) .	8—9	" " "	" "	" 3.
Penmanship, Div. I.	7—8	Mon., Wed., Fri.,	" Hutchinson.	" 5.
" " II.	8—9	" " "	" "	" 5.
" " III.	7—8	Tues. and Thurs.,	" "	" 5.
" " IV.	8—9	" " "	" "	" 5.
" " V.	7—8	Mon., Wed., Fri.,	" Knight.	" 1.
" " VI.	8—9	" " "	" "	" 1.
" " VII.	7—8	Tues. and Thurs.,	" "	" 1.
" " VIII.	8—9	" " "	" "	" 1.
Elementary German, Div. I.	7—8	Mon., Wed., Fri.,	" Jonsen.	" 12.
" " " II.	8—9	" " "	" "	" 12.
Advanced " . . . . . (5)	7—8	Tues. and Thurs.,	" "	" 12.
" French . . . . . (6)	8—9	" " "	" "	" 12.
Geometry	8—9	Mon., Wed., Fri.,	" Moriarty.	" 6.
Commercial Arithmetic	7—8	Tues. and Thurs.,	" "	" 6.
Elementary Algebra	8—9	" " "	" Adams.	" 9.
History	7—8	" " "	" Dean.	" 11.
Natural Philosophy	7—8	Mon., Wed., Fri.,	" Keene.	" 2.
Elocution, Div. I.	7—8	Tues. and Thurs.,	" "	" 2.
" " II.	8—9	" " "	" "	" 2.
Spelling	8—9	Mon., Wed., Fri.,	" "	" 2.

(1) Applicants, in choosing their studies, will be careful to see that they do not conflict: for instance,—it would be impossible for a student to take both Geometry and Advanced Grammar, as both come from 8—9 on Monday, Wednesday and Friday.

Scholars are expected to be present only at the times of their recitations.

(2) The separation of the classes into divisions is for convenience of instruction simply, the course of study being the same for all the divisions of each class.

(3) Some acquaintance with book-keeping by double entry is necessary for entrance to this class.

(4) The Class will commence at Vulgar Fractions, and a thorough knowledge of the four fundamental operations is required for admission.

(5) A knowledge of the elements of German Grammar, and ability to translate easy German prose with the help of the dictionary, are requisite for admission to this class.

(6) A knowledge of the elements of French Grammar, and ability to translate simple French prose with the help of the dictionary are required.

Applicants are directed to preserve this paper and bring it with them when they come to join their classes. No one will be allowed to join his class without presenting this paper.

ANNUAL SCHOOL FESTIVAL.

1876.

ANNUAL SCHOOL FESTIVAL, 1876.

The Annual School Festival, in honor of the graduates of the Public Schools, was held in Music Hall, on the afternoon of Saturday, July 1st, under the direction of a committee of the School Board, appointed for the purpose, consisting of Messrs. Warren P. Adams, John G. Blake, William H. Finney, William T. Adams and John E. Blakemore.

Invitations were extended as usual to the City Council, the heads of departments, the School Committee, and the teachers of the Public Schools.

With a large representation from these bodies, there were present many parents of diploma scholars to witness the exercises in which their sons and daughters were to take part. The occasion was honored by the presence of His Honor the Mayor, several State officials, and other distinguished citizens. There was present also a French gentleman of high distinction, M. E. Levasseur, member of the Institute, and professor in the College de France, who is an earnest advocate of educational progress in his own country.

The decorations were elaborate and in excellent taste. The balconies were adorned with festoons of evergreen, and with pendant baskets of ivy, ferns and other decorative greens. From the lofty ceiling over the stage were suspended graceful festoons of evergreen, which served as a setting for a superb floral

basket which was hung in front of the centre of the organ. From each chandelier, which was dressed in ferns, was hung a floral basket. The whole front of the stage was profusely decorated with boxes and rustic stands, filled with ferns, flowers and tropical foliage plants. Altogether the decorations were highly creditable to the florist, Mr. Doogue, who furnished them.

The eighteen hundred bouquets destined for the graduates were ranged in three masses along the back part of the stage. On the left was a bank of bouquets from the establishment of Messrs. Dee and Doyle, and on the right another, furnished by Mr. Norton, while in the centre was a towering cone of bouquets supplied by Mr. Doogue.

The commencement of the first piece of music by the Germania Band was the signal for the pupils, who had been marshalled in the order of the schools in Bumstead hall and the corridors, to move to the places assigned them in the balconies. Four columns entered simultaneously at different doors, under the marshalship of L. M. Chase, Esq., master of the Dudley School, the graduates of each school being headed by the principal. The whole number of graduates present was 1,423, of whom 407 were from the High Schools, and 1,016 from the Grammar Schools.

ADDRESS BY THE CHAIRMAN.

The Chairman of the Committee of Arrangements, Warren P. Adams, Esq., opened the exercises by the following address: —

Ladies and Gentlemen, Graduates of our Public Schools, — We have assembled here to-day to do homage to you. The day and the hour are yours, and it is for us to remain mute and interested witnesses of your happiness, while you appropriate to yourselves the enjoyment you have so well earned.

Boston renews to-day, with increased pride and heartiness, the generous welcome she has so often extended to her children. What grander or lovelier sight anywhere greets the eye than this annual school festival, as it comes year after year with ever-recurring freshness and beauty? And it has for you more than a passing significance. While it is a suggestion rather than a proof of your success, it will recall to you, in the years to come, that in the grand but silent warfare against the allurements of ease and of selfishness you came off victors.

The discipline of mind, the enrichment of character, and the power of self-control, which the passing years have brought you, are no ordinary prize to win. Panoplied with these, you can, with firm and confident tread, step upon the shores of that new and untried future, whose limits, dim and undefined, stretch out before you.

You have reached a halting-place in your life-march, and, ere you gird yourselves for new duties and larger conflicts, it is well to lay aside the weapons of your toil and look back through the vista of years over the road you have traversed with such seeming care and labor. How pleasing the retrospect! How the kindly aid and sympathy of

teachers and friends have strengthened the heart and energized the soul!

Need I remind you of what lies beyond, and of the fortitude and rigor, the zeal and endurance, you must summon to your aid for future conquests? There are powers of the intellect to be developed whose unfolding has just begun. There ore broad and tempting fields of literature which lie unexplored before you. There are flowers of perennial freshness and unchanging beauty for you to gather, of which the graceful tributes you receive to-day are but the faintest emblems. There are serene and beautiful heights of character, up which pure hearts and earnest lives alone can lead you, but where repose and peace abide.

But there are sturdy blows to be given in life's battles, and yours must be the arm to wield them. Yours must be the warm heart, the cunning brain, the willing hand, to help on the true and the right. Persevere, then, as you have begun, and accept our God-speed in your good work.

His Honor Mayor Cobb, then being introduced, addressed the pupils as follows: —

My Young Friends, — The Mayor of the city, in the discharge of his official duties, has many disagreeable things to do, and some troublesome people to meet and deal with. But, as an offset, he has the privilege of performing some duties which are pure pleasures, and of meeting many persons into whose faces it is a delight to look. One of these pleasures is permitted me to-day — that of meeting face to face the truly élite of the city's children and youth at the

close of the school year, and exchanging with them slight but expressive tokens of felicitation and good-will.

The committees report that you have passed your examinations creditably, and have done yourselves and the city much honor.

I congratulate you on arriving at the day when you graduate at your several schools, either to go up higher, or to go forth to engage in the business of life.

To those of your number who are about to leave school, indeed to all of you, it is a matter of considerable interest that you come here to-day to be recognized as the graduates from the Grammar and High Schools of the City of Boston, on this centennial year of our national independence.

I wish you a pleasant vacation. Enjoy yourselves as much as you can, and seek health and strength in rest and recreation.

In parting from you, allow me the pleasure of presenting to you severally a little bunch of flowers, as a memorial of the occasion, and a slight token of my satisfaction in your well-doing, and of the interest I feel in your future welfare.

The flowers are really the gift of the city to her children, in whom her hopes and affections are so largely bound up. But I will venture to stretch my official prerogative a little, and, by a slight usurpation of privilege, ask you to accept them as a personal gift from myself. I do this because I shall always remember you as you appear before me here in mass, and many of you I shall be likely to remem-

ber personally; and at the same time I wish to be personally remembered by you as one who feels kindly towards you, and has tried to promote your welfare and happiness, and who has taken pride in the high character of the city schools which you have done so much, and I hope your best, to promote.

The pupils were then marched in single file across the platform, where the Mayor placed in the hand of each a handsome bouquet, and back to their places, to be served with a collation. After the collation the young folks, with all their honors blushing thick upon them, took the floor for a lively dance, while the Germanians discoursed inspiring strains of music. In the mean time the committee and invited guests repaired to Wesleyan Hall to enjoy a quiet social collation.

FRANKLIN MEDALS,

LAWRENCE PRIZES,

AND

DIPLOMAS OF GRADUATION.

FRANKLIN MEDALS.

1876.

LATIN SCHOOL.

Charles S. Lane,
Philip R. Alger,
Arthur N. Milliken,
William S. Eaton,
Edward S. Hawes.

ENGLISH HIGH SCHOOL.

Charles H. Brown,
Jacob M. Spitz,
George L. Gifford,
Asa P. French,
George A. Parsons,
Frederick W. Stuart,
Charles W. Millett,
Charles H. Bailey, Jr.,
John J. Moore,
Charles H. Falardo,
Frank N. B. Allen,
Peter F. Gartland,
William T. Miller,
Rufus A. Kingman,
Frederick R. Sweeney,
Henry L. Whiton,
John Albree, Jr.,
George A. Neily,
Walter I. Badger,
Augustus H. Rowe,
William H. White.

LAWRENCE PRIZES.

1876.

LATIN SCHOOL.

DECLAMATION. — *First Prize.* — Daniel J. Shea. — *Second Prizes.* — Harvey N. Collison, Charles J. Cameron. — *Third Prizes.* — Edward L. Underwood, Edward S. Hawes.

Exemplary Conduct and Fidelity. — Philip R. Alger, John C. Munroe, Isaac L. Rogers, William Winslow, James McInnis, Thaddeus W. Harris, George H. Nichols, Thomas T. Baldwin, William H. Langdon, Joseph F. Woods, J. H. Woods.

Exemplary Conduct and Punctuality. — Joseph A. W. Goodspeed, George A. Stewart, Henry B. Twombly, Edward L. Twombly, William A. Hayes, Harry E. Seaver, Horatio N. Glover, Benjamin P. Clark, Henry E. Fraser, William W. Fenn, Charles S. Lane, Hammond V. Hayes.

Excellence in the Classical Department. — Charles S. Lane, Harry E. Seaver, Benjamin P. Clark, James W. Bowen, George A. Stewart, Henry B. Twombly, William A. Hayes.

Excellence in Modern Department. — Charles S. Lane, Edward L. Twombly, Benjamin P. Clark, Thomas C. Batchelder, George A. Stewart, Henry B. Twombly, William A. Hayes.

PRIZES FOR SPECIAL SUBJECTS.

For a Latin Essay. (Second Prize.) — Edward S. Hawes.

For a Translation into Greek. — (Second Prize.) — Charles S. Lane.

For an English Essay "Aryan Migration." — (First Prize.) — Walter A. Smith.

For a Translation from French. — (First Prize.) — Harvey N. Collison.

For a Translation from Phædrus. — (First Prize.) — Horatio N. Glover.

For a Translation from "Viri Romæ." — (First Prize.) — William A. Hayes.

For the Best Demonstration of a Proposed Geometrical Theorem. — (First Prize.) — James B. Field.

For the Best Specimen of Penmanship. — (Second Prize.) — Jacob C. Morse.

For the Best Specimens of Drawing. — (First Prizes.) — Walter A. Smith, Walter W. Morong.

ENGLISH HIGH SCHOOL.

Declamation. — *First Prizes.* — William T. Miller, Samuel B. Doggett. — *Second Prizes.* — Asa P. French, John F. Sullivan. — *Third Prizes.* — John J. Moore, Homan E. Reed.

For Essays. — *First Prize.* — James A. Fynes. — *Second Prizes.* — H. E. Reed, G. P. Dane.

SPECIAL.

For Excellence in Scholarship and Deportment. — *First Class.* — (First Prizes.) — A. D. Coombs, E. H. Green, J. E. Fogarty, W. L. Underwood, F. J. Chaplin, Lawrence Mayo, W. A. Garratt, Peter Collamore. — (Second Prizes.) — F. L. Underwood, S. B. Doggett, James Dunbar, J. W. Keyes, J. J. Cahalan, Oscar Richardson. — *Second Class.* — (First Prizes.) — G. P. Dane, J. F. Eldridge, Jr., A. P. Smith, I. D. Spitz, L. Emerson, H. P. Furber, F. H. Briggs, C. A. Baker, W. J. Bicknell, I. M. Barnes, Jr., J. P. Shortell, H. Pope, T. A. Lambert, F. A. Carlton, H. S. White. — (Second Prizes.) — W. F. Wheeler, E. E. Williams, J. E. Curry, W. S. Murphy, J. A. Curley, J. Ayres, C. F. Morse. — *Third Class.* — (Second Prizes.) — C. R. Clapp, Charles Sandmann, Jr., A. N. Wahlberg, A. W. Watkins, H. F. Atwood, W. L. Gifford, Francis Draper, Jr., J. J. Conolly, F. B. Bemis, A. J. Colgan, A. H. Crompton, P. H. Sampson, F. N. Hartshorn, W. T. Mosher, C. A. French, H. H. Bowman, A. E. Frye, J. W. Shaw, A. W. Bliss.

DIPLOMAS OF GRADUATION.

1876.

NORMAL SCHOOL.

Julia L. Adams,
Martha H. Ames,
Mary E. Badlam,
Francis M. Bell,
Clara H. Booth,
Lucy M. Bosworth,
Annie E. Bryant,
Mary L. Caswell,
Jennie A. Cheney,
Claudine E. Cherrington,
Frances A. Cornish,
Rebecca Coulter,
Emma F. Crane,
Florence E. Dexter,
Mary E. Driscoll,
Anna M. Edmands,
May G. Esdon,
Julia A. Evans,
Emma J. Fossett,
Rosanna Follan,
Agnes Gordon,
Ida E. Halliday,
Hellen Harrington,
Susan B. Harris,
Katie Haushalter,
Jennie L. M. Hill,
Mary E. Hill,
Nellie A. Hoar,
Mary A. Howe,
Adelaide E. Ingraham,
Elma Kenney,
Susie Knott,
Lizzie B. Ladd,
Ella F. Lanning,
Minnie L. Lincoln,
Annie C. Littlefield,
Elizabeth McDonald,
Hannah L. McGlinchy,
Francis M. Merrill,
Mary Lizzie Morrissey,
Rebecca Morrison,
Helen L. Moulton,
Margaret E. Moynihan,
Maria L. Nelson,
Esther F. Nichols,
Elizabeth E. O'Connell,
Charlotte Ann Pike,
Josephine A. Powers,
Margarette H. Price,
Jennie Reid,
Nellie L. Shaw,
Mary E. T. Shine,
Alice T. Smith,
Miriam B. Swett,
Nellie B. Tucker,
Hattie E. Turner,
Mary Carrie Turner,
Carrie L. Vose,
Mary E. Watson,
Annie J. Whelton,
Mary Ellen Wilder.

LATIN SCHOOL.

Philip Rounseville Alger,
Philip Townsend Buckley,

Louis Munroe Clark,
Harvey Newton Collison,
William Smith Eaton,
James Brainerd Field,
Edward Southworth Hawes,
Phineas Camp Headley,
Francis Marion Holden,
Frank Winchell Jones,
Charles Stoddard Lane,
Charles Johnson Means,
Arthur Norris Milliken,
Warren Morse,
George Alcott Phinney,
Henry Wilson Savage,
Daniel Joseph Shea,
Walter Allen Smith,
William Stanford Stevens.

ENGLISH HIGH SCHOOL.

A. A. Adams,
John Albree, Jr.,
F. N. B. Allen,
L. W. Armstrong,
Walter I. Badger,
Chas. H. Bailey, Jr.,
F. F. Baldwin,
H. M. Bickford,
H. K. Blair,
J. A. Bond,
Chas. H. Brown,
H. M. Burton,
J. J. Cahalan,
J. J. Callahan,
F. J. Chaplin,
A. A. Christian,
Peter Collamore,
D. A. Collins,
P. H. Conway,
A. D. Coombs,
H. N. Crane,
Wm. Cumston,
H. H. Cutler,
F. L. Davis,
S. B. Doggett,
J. T. Douglas,
James Dunbar,
W. B. Ellis,
Charles H. Falardo,
B. F. Fenton,
J. E. Fogarty,
A. P. French,
J. A. Fynes,
G. C. Garland,
W. A. Garratt,
A. F. Garrett,
P. F. Gartland,
Fred Getchell,
G. L. Gifford,
Edward H. Green,
Chas. A. Grimmons,
Chas. C. Guiteau,
E. M. Hahn,
D. J. Haley,
F. A. Hall,
H. S. Hall,
S. R. Hall,
W. C. Haskell,
Geo. G. Hayes,
J. W. Heustis,
J. M. Hobbs,
D. E. J. Horgan,
A. H. James,
F. L. Joy,
Meyer Kaufman,
J. W. Keyes,
R. A. Kingman,
N. W. T. Knott,
J. H. Krey,
F. H. Leonard, Jr.,
J. J. Linehan,
Charles F. Lovejoy,
W. B. Luce,
G. L. Magurne,
Lawrence Mayo,
A. H. McAloon,
W. S. McLauthlin,
Chas. E. Miley,
Wm. T. Miller,
Charles W. Millett,
J. J. Moore,
Fred F. Murphy,
John Nason,
G. A. Neily,

G. A. Parsons,
W. F. Patten,
W. F. Powers,
J. T. Quinn,
Oscar Richardson,
Chas. W. Roberts,
A. H. Rowe,
H. L. Shurtleff,
W. T. Simmons,
J. M. Spitz,
F. W. Stuart,
F. R. Sweeny,
T. C. Thacher,
G. G. Topham,
Wm. L. Underwood,
Albert S. West,
Henry L. Whiton,
A. H. Thompson,
Frank L. Underwood,
W. A. Wallingford,
Wm. H. White,
Edmond A. Whittier.

GIRLS' HIGH SCHOOL.

Lillie Austin,
Harriet Frances Averill,
Eleanor Nickerson Baxter,
Nellie May Bennett,
Mercy Anna Birmingham,
Cora Ann Blackwell,
Dollie Annie Blodgett,
Mary Davis Bond,
Isabella Geraldine Bonnar,
Harriet Adeline Burditt,
Ida Maria Burton,
Kate C. Capron,
Hattie Marilla Chenery,
Emma Susan Cobleigh,
Florence Hamilton Cogswell,
Grace Fisher Coolidge,
Marion P. Crocker,
Ellen Borden Crooker,
Emma Adelaide Cudworth,
Margaret Agnes Curran,
Nellie Ware Cutting,
Emma Loena Damon,
Alice Mabel Dickey,
Florence Isabel Drake,
Clara Cecilia Dunn,
Annie Agnes Elizabeth Fagan,
Ella Marion Fairbanks,
Mary Abbie Farrington,
Sarah Barnes Fisk,
Mary Louisa Fitzgerald,
Emily J. Floyd,
Sarah Gray Fogarty,
Ella Fuchs,
Medora O. Fuller,
Henrietta Gilchrist,
Katharine Elizabeth Gillespie,
Emma Ruth Gragg,
Lizzie Linzee Gray,
Carrie Gilman Greeley,
Belle Gustin,
Carrie Therese Hale,
Kate Reese Hale,
Mary Ella Harrington,
Flora Adeline Hatch,
Elizabeth Bowers Hedge,
Catharine Alice Agnes Hennessey.
Ada Harvey Hersey,
Emma Florence Horton,
Alice Putnam Howard,
Lydia Adelle Howes,
Lydia Alberta Hutchings,
Ella Charlotte Hutchins,
Ellen Foster James,
Jessie Fremont Jennings,
Florence Nightingale Johnstone,
Mary Grace Jones,
Emma Eliza Keeler,
Sarah Frances Elizabeth Kennedy,
Gertrude Eliza Kent,
Fannie Louise Knight,
Mary A. Kyle,
Kittie Augustia Learned,
Dora Maria Leonard,
Florence May Lothrop,
Hattie Mann,
Susan Huntington Manning,
Kate Mussey Mason,
Emily Rebecca Maynard,
Annie Isabella Merriss,

Alice Theresa Miller,
Ella Wells Mitchell,
Lizzie Anna Moody,
Nannie Jones Morgan,
Martha Medora Morrison,
Mary Emma Morse,
Martha Howard Munro,
Susan Elizabeth Hunter Munroe,
Marion Newell,
Henrietta Nichols,
Eliza Rosita Noyes,
Mary Ellen O'Connor,
Mary O'Neil,
Elizabeth Palmer,
Mary Palmer,
Mary Amanda Palmer,
Ellen Greenough Parker,
Anna Russell Phelps,
Sophronia Hinckley Phinney,
Alice Jameson Pierce,
Mary Elizabeth Pierce,
Nellie Alexandrenia Pierce,
Cora Frances Plummer,
Laura Susanna Plummer,
Mary E. Porter,
Susan Virginia Putnam,
Annie Joseph Regan,
Almira Estelle Reid,
Helen Cora Richardson,
Ella Gertrude Riedell,
Clara Elizabeth Roberts,
Laura Stanley Russell,
Harriet Ella Ryder,
Grace Eliza Shaw,
Helen Adelaide Shaw,
Louise Clapp Sherman,
Emma Francis Simmons,
Nellie Hebard Smith,
Theresa Strauss,
Cornelia Melissa Sullivan,
Alice Josephine Thayer,
Cordelia Grace Torrey,
Abbie Ella Tower,
Carrie Frances Vinal,
Lizzie Frances Wait,
Mary Catharine Walsh,
Fanny Esther Ward,
Martha Nellie Warren,
Minnie Susan Warren,
Sarah Everson Welch,
Annie Grace Wells,
Lydia Gillespie Wentworth,
Julia Kendall Whipple,
Ellen Marcia White,
Alice M. Whitford,
Jennie Williams Whiton,
Fredelena Adelaide Wiggin,
Carrie Eliza Willard,
Alice Child Williams,
Sara Wallis Wilson,
Lizzie Josephine Woodward.

ROXBURY HIGH SCHOOL.

Boys.

Charles Smith Brock,
Frank Norris Brown,
Henry Edmund Cook,
George Huntington Flint,
Frank Charles Gemeiner,
James Wilson Greenlaw,
Samuel Tappan Harmon,
Edward Joseph McCormick,
William S. McGowan,
George Henry Mulliken,
John Henry Murphy,
Frederic Huntington Putnam,
Hermann Curtis Soule,
Charles Sinclair Stone,
Edward Michael Stanton,
Henry Clarence Tanck,
Josiah Edward Tappan,
Henry Young Wiggin.

Girls.

Lottie Bassett Alden,
Annie Eliza Aldrich,
Emma Frances Bowen,
Gertrude Amelia Burrell,
Lucy Gay Morse Card,
Mary Isabel Chamberlin,
Eva Dudley,
Sabina Egan,

Mary Hubbard,
Alithea Maria Hutchins,
Hannah Caroline Leavitt,
Carrie Josephine Littlefield,
Lizzie Delanie Lunt,
Louise McGlew,
Mary Murphy,
Elizabeth Theobald Nason,
Eva Maria Nay,
Emily Josephine Stetson,
Alice Gertrude Stockman,
Martha Jane Thaxter,
Lena Weiler,
Emily Fidelia Wells,
Mary Emma White.

DORCHESTER HIGH SCHOOL.

CLASSICAL COURSE.

Boys.

Charles Wesley Bradley.

FOURTH YEAR'S COURSE.

Girls.

Adelind Jones Callendar,
Elizabeth Le Royd Cutter,
Eva Clara Dix,
Josie Alena Jones,
Emma Louisa Smith,
Mary Tucker,
Abba Elizabeth Wall,
Sarah Antoinette Whall.

THIRD YEAR'S COURSE.

Boys.

Wallace Harmon Butland,
Edwin Dunbar Collins,
Edward Collins,
Sumner Clark Ferry,
Harry Howard Gay,
Charles Ellis Houghton,
Harry Sullivan Kendall,
Nathaniel Low Moore,
Henry Phillips Oakman, Jr.,
Theodore Parker,
Stephen Payson Perrin,
Ebenezer Kendall Pratt,
Walter Shepard Ufford.

Girls.

Ida Helen Adams,
Fanny Elizabeth Bates Benedict,
Alice Walker Dean,
Edith Warren Everett,
Eurilla Elizabeth Gurney,
Elizabeth Atwood Lynch,
Agnes Howard McKendry,
Ida Amelia Porter,
Agnes Reid,
Mary Emma Ryder,
Edith Frances Scudder,
Ardelle Augusta Stearns,
Georgianna Meserve Twombly,
Grace Mann,
Grace Wheeler.

CHARLESTOWN HIGH SCHOOL.

THREE YEARS' COURSE.

Boys.

George M. Allen,
Sanford Bray,
Harry E. Burbeck,
Ernest L. Copeland,
Willard E. Ferguson,
George L. Gardiner,
Charles N. Kidder,
Frank W. Meserve,
Frederick Plaisted,
Charles H. Walker.

Girls.

Mary E. Corbett,
Margaret A. Driscoll,
Ida J. Garland,
Ada F. Haynes,
Katie Hewitt,
Maggie J. Turnbull.

FOUR YEARS' COURSE.

Boys.

Harry A. Bolan,
Charles J. Nesmith,

Edwin O. Upham,
George Sumner Wright.

Girls.

Anna J. Corbett,
Alice S. Daniels,
Caroline Doane,
Lizzie E. Folsom,
Martha J. Hunter,
Belle Otis Lancaster,
Carrie M. Lothrop,
Abbie C. McAuliffe,
Maria H. Mülle,
Alta Pease,
Carrie M. Small,
Annie M. Stone,
Fannie H. Summers,
Hattie L. Todd.

WEST ROXBURY HIGH SCHOOL.

Boys.

Harwood Prescott Bigelow,
Albert C. Hagar,
Herbert B. Johnson,
Frank Ellis Smith.

Girls.

M. Josephine Brown,
M. Alberta Cox,
Julia Hamilton,
Louise M. Ordway,
Mary A. Shea.

BRIGHTON HIGH SCHOOL.

Boys.

Fred Atherton Cross,
Joseph Finotti Ready,
Thomas James Scollans.

Girls.

Lillie Flora Bickford,
Sarah Annie Mackin,
Maria T. Moody.

ADAMS SCHOOL.

Boys.

Elmer Hooker Allyne,
Moses William Brown,
George Joseph Bohling,
Thomas Bernard Cummings,
George Fitzpatrick,
Charles Adam Fisher,
George Elmer Fowle,
Rowland Jackson,
Charles Libbey Joy,
Sydney Granville Mahn,
Michael Francis McLaughlin,
Edward Joseph Nagle,
Harry Joseph Pearson,
Clarence Henry Pike,
Frank Woodbury Remick,
Joseph Remick,
William Dennis Shields,
Henry Joseph Wagenfeld,
Edwin Frank Webster.

Girls.

Margaret Jane Bailey,
Hattie Ella Collier,
Ellen Lavinia Curtis,
Emma Frances Daisley,
Edith Florence Fuller,
Sarah Jennie Gordon,
Fannie Rose Morris,
Margie Plummer,
Katie Louise Williamson.

ANDREW SCHOOL.

Francis B. Doherty,
William H. Fabian,
John S. Gustin,
Charles King,
William King,
George H. Lunt,
George A. Lyons,
Frank A. Murphy,
James A. Owens,
John A. Power,
Albert H. Tuttle.

BENNETT SCHOOL.

Boys.

Frank Burke,
George Edwin Brock,
Charles Edward Holman,
William Otis Hall,
Arthur Eugene Jackson,
William Sheehan,
Patrick Walsh.

Girls.

Alice Amelia Brewer,
Lena Harrington,
Cordelia Clark Sanderson,
Annie Maria Van Etten,
Alice Maria Walton.

BIGELOW SCHOOL.

Wm. A. Bragdon,
Richard P. Burke,
George R. Cavanagh,
Thomas H. Corbett,
Edwin P. Davenport,
Wm. B. Haynes,
Francis X. Hennessy,
Charles J. Hickey,
Edward C. Jones,
John F. Leary,
Albert Leffler,
Henry D. Lowell,
John J. Murphy,
Calvin M. Nichols,
John J. Nihill,
Henry J. O'Brien,
Daniel O'Hearn,
Wm. M. Pottle,
Frank Reagan,
Wm. J. Saunders,
Hayden M. Saben,
Wm. O. Wakefield,
Wm. H. H. Welch,
John V. Young.

BOWDITCH SCHOOL.

Margaret G. Calnin,
Annie M. Coughlan,
Annie M. Curran,
Mary F. Doyle,
Ellen E. Ford,
Margaret A. Keiley,
Sarah E. Loheed,
Margaret M. Murphy,
Mary E. E. Murray,
Catharine F. Neagle,
Elizabeth A. Noonan,
Ellen F. Ryan,
Catharine J. Sweeney.

BOWDOIN SCHOOL.

Portia H. Albee,
Isabel A. Barton,
Lizzie Bruce,
Minnie E. Burns,
Celia Cobe,
Mabel Daggett,
Isabella A. Day,
Maggie H. Flood,
Josie L. Ford,
Lottie A. Gibson,
Ida M. Greene,
Addie E. Hall,
Martha J. Healey,
Mary J. Johnson,
Ida F. Mann,
Mary E. Martin,
Grace V. McKirdy,
Alice M. Mills,
Mary L. Porter,
Lillie C. Ross,
Lizzie D. Sears,
Edith Shepherd,
Mary A. Sprague,
Helen M. Stowe,
Jennie P. Thompson,
Persis M. Warren,
Emily A. Williams.

BRIMMER SCHOOL.

Victor C. Alderson,
Herschel Bacharach,

Louis Baier,
Edmund J. Barrett,
Charles L. Braman,
William B. Brooks,
William M. Buffum,
Charles W. Carter,
Peter T. Connor,
Frank D. Davis,
Frederiek J. Doyle,
Willim Fishel,
Edward W. Frye,
Richard A. Guinsburg,
Thomas F. Hutehinson,
John H. Hutchinson,
Jacob Kareher,
Horaee R. Kelly,
Henry Kingman,
Isaae Louis,
William D. Merritt,
Otto Müller,
Charles D. Murphy,
George S. Newell,
Charles J. Noether,
Frederie A. Reed,
Louis E. Shoninger,
Welpha L. Siomdlehurst,
William H. A. Watts,
Levi J. Wiggin.

BUNKER HILL SCHOOL.

Boys.

Byron E. Baker,
Arthur F. Boardman,
William Burrows,
Charles H. Cutting,
John J. Driseoll,
Walter S. Haynes,
Arthur W. Hutehins,
Daniel J. Hanigan,
William H. S. Jarvis,
Thomas C. King,
George F. Noah,
Thomas B. Priee,
Walter A. Pearee,
Arthur E. Roberts,
George L. Stone.

Girls.

Millie J. Allen,
Mary E. Bean,
Marion I. Lee,
Sarah A. O'Connell,
Aliee S. Russell,
Sarah L. Spear.

CENTRAL SCHOOL.

Edwin F. Benson,
John J. Fallon,
Chas. F. A. Farnsworth,
Herman A. Hetzer,
Willis K. Hodgman,
William H. Holmes,
Patrick McCanley,
John A. MeKim,
Benjamin W. Putnam,
Edgar B. Sampson,
Frank C. Wellington,
Joseph A. Winkler.

CHAPMAN SCHOOL.

Boys.

Eugene H. Bailey,
George F. Benner,
George Buntin, Jr.,
Albert H. Cowin,
George J. Ferreira,
George B. Frost,
Samuel C. Gomez,
Sterling Jones,
Columbus Joy, Jr.,
Edgar F. Keen,
Michael McCarthy,
William McKinnon,
William J. MeNeil,
Joseph C. Roehe, Jr.,
Franklin M. Ryder,
Hiram F. Stevens,
Henry D. Stone,
Frank W. Tueker.

Girls.

Lizzie B. Cotter,
Carrie G. Coudrey,

Jennie L. Dunnels,
Lavinia W. Fletcher,
Kate A. Holmes,
Lillie A. Kornegay,
Ida M. Leslie,
H. Emma Mansfield,
Lizzie C. McKeown,
Minnie L. McMichael,
Phebe A. McQuarry,
Martha H. Palmer,
Lucia M. Rollins,
Annie L. Ryder,
Almira J. Synett,
S. Emma Taylor,
Annie J. Wehrle,
Mary C. Wells.

COMINS SCHOOL.

Boys.

Thos. F. Cleary,
James A. Crosby,
William B. Hastings,
William C. Jager,
Charles S. Penner,
Edward Schenrch.

Girls.

Agnes M. Buckley,
Agnes E. Cairnes,
Kate F. Cleary,
Emily A. Crafts,
Emma A. Colgan,
Kate F. Dolan,
Jennie A. Gillmore,
Mary E. Kenney,
Barbara L. Laviska,
Mary A. Monohan,
Mary E. Schell,
Addie L. Stockwell,
Hattie M. Ward,
Edith M. C. Ward,
Emma A. Yeniek.

DEARBORN SCHOOL.

Boys.

William G. Burbeek,
Henry C. Byrne,
Frederic W. Chapman,
Edward A. Connor,
Augustine A. Keenan,
Walter A. Lauler,
William S. Lloyd,
James Mulvee,
Hamilton D. Paine,
Varnum S. Waugh.

Girls.

Mabel Aull,
Gertrude P. Davis,
Mary E. Ferguson,
Leona A. Foster,
Edith Kelley,
Ariana E. Olevadou,
Della G. Robinson,
Fannie Scheidegger,
Emma M. Schmidt,
Elsie Woods.

DUDLEY (BOYS') SCHOOL.

Charles Elmer Alexander,
William Henry Askenasy,
William Bacon,
James Elsworth Cole,
Peter Frank Conway,
Frank Warren Hastings,
Alfred Batcheller Hubbard,
Walter Lincoln Libbey,
Edmund Francis McCarthy,
Thaddeus Frank Mulrey,
Herbert Huntington Powers,
Edward Joseph Scott,
William Carpenter Woodward.

DUDLEY (GIRLS') SCHOOL.

Alice W. Backup,
Minnie I. Barbour,
Carrie E. Bigelow,
Sarah E. Chapman,
Florence H. Chapman,
Catharine D. Cliffe,
Lilian E. Downes,
Louise Heidenreich,
Blanche B. Howe,

Alice M. Johnson,
Hedwig Koehler,
Grace F. Leach,
Mary E. McCarty,
Mabel F. McGlynn,
Catharine A. Mulrey,
V. Colonna Murray,
Carrie F. Watson,
Jeanie P. White,
Cora I. Witherell.

DWIGHT SCHOOL.

Stephen S. Bartlett,
Dwight F. Boyden,
John R. Campbell,
George W. Carruth,
H. G. Chase,
Frank O. Cunningham,
Alfred W. Cutting,
Henry C. Everett,
William A. Fisher,
Chrissie H. Foster,
Charles P. George,
George B. Glidden,
Michael J. Golden,
Fred Gutterson,
Charles C. Hearn,
Edgar W. Heyer,
Edward A. Hibbard,
Fred R. Hunt,
Theodore A. Ide,
Bernard F. Lamb,
Frank A. Lappen,
Frank Z. Learned,
Joseph J. Lucas,
Walter L. Macomber,
Eli Meinrath,
J. Wells Morss,
James J. Murphy,
Arthur J. Putnam,
John C. Robinson,
Walter J. Rooney,
Harry L. Soule,
Frank R. Spaulding,
Benj. W. Spence, Jr.,
William L. Stubbs,
Edward H. Studley,
Frank Tenney,
William E. Wall,
Frank J. Walsh,
William Zittel.

ELIOT SCHOOL.

Michael W. H. Ahern,
Thomas F. Baker,
Richard M. Barry,
Michael J. Collins,
Joseph F. Corey,
Cornelius J. Cotter,
William J. Crowley,
John J. Desmond,
John M. Flaherty,
George B. Glawson,
John J. Harrington,
Albert M. Jacobs,
Owen F. Keating,
Timothy J. Kerrigan,
Daniel Lowrey,
Edward J. Lynch,
James T. Murray,
Augustus L. Perry,
George T. Shannon,
Hugh Timmins,
James J. Walkins.

EVERETT SCHOOL.

Mary Bannon,
Grace Blanchard,
Hattie Maria Blodgett,
Alice Cynthia Brigham,
Ella French Brown,
Addie Beaumont Camp,
Florence Gertrude Cobb,
Grace Lilian Curtis,
Carrie Brewer Danforth,
Belle Hall Dewey,
Jessie Rouel Driggs,
Martha Eustis,
Katie Josephine Glancy,
Grace Evelyn Gott,
Alice Elizabeth Greaves,

Mary Louise Greaves,
Mary Lyman Gutterson,
Anna Winslow Hall,
Katy Veronica Hearn,
Jennie Maria Hinds,
Jennie Caroline Houghton,
Margaret Theresa Hurley,
Annie Lizzie Kelley,
Leila Echeveria Lawrie,
Alice Graupner Loring,
Katy May Lothrop,
Susie Langdon Marsh,
Theresa Agatha Masterson,
Cornelia Walter McCleary,
Caroline Frances Morey,
Annie Cleveland Murdock,
Grace Julia Newell,
Julia Anna Pearson,
Alice Ranney,
Sarah Ellen Rich,
Katharine Hamer Shute,
Minnie Fisher Stanwood,
Mary Elizabeth Stuart,
Mary Lindall Tarr,
Mary Ann Taylor,
Mary Oliver Wade,
Frances Mary Walker,
Mary Lavinia Wiggin.

DORCHESTER-EVERETT SCHOOL.

Boys.

Robert J. Dolah,
Timothy Driscoll,
Charles H. Eddy,
George E. Hill,
Walter S. Hill,
Frank F. Ordway,
Charles F. Riley,
George C. Thacher,
Frank H. Wheelock.

Girls.

Fannie F. Fraser,
Etta S. Gray,
Alice M. Hersey,
Hattie O. Hill,
Clara D. Macy,
Annie M. Peterson,
S. Etta Veazie.

FLORENCE SCHOOL.

Boys.

William B. Merrill,
Robert J. Tabraham,
John H. Weld.

Girls.

Catharine H. Blood,
Mary Grant,
Catharine F. McGonigle,
Emma B. Morse,
Alice C. Merrill,
Edner P. Marshall,
Elizabeth F. Weld,
J. Wilhelmina Wilkins.

FRANKLIN SCHOOL.

Genevre Annand,
Florence Alexander,
Velma Briggs,
Jennie B. Brown,
Gertrude E. Brown,
Katie F. Burke,
Emma Channell,
M. Addie Cobleigh,
Anna C. Coleman,
Clara L. Drisko,
Alice I. Eastman,
Mabel I. Emerson,
Emma G. Gilmore,
Julia E. Gookin,
Laura B. Gould,
Carrie E. Horton,
Lizzie F. Howard,
Mabel G. Johnson,
Augusta I. Johnson,
Emma E. Lawrence,
Mary D. Maxwell,
Mary T. McBarron,
Frances A. McCance,

Sadie E. Metcalf,
Gertrude E. Moore,
Mattie Moore,
Jennie A. Morse,
Emma G. Mullen,
Jennie E. Page,
Jennie M. Plummer,
Lucy C. Prendergast,
Hattie M. Roundy,
Nellie F. Rowe,
Antoinette Schlegel,
Clarissa F. Seaverns,
Carrie M. Snow,
Belle M. Thompson,
Annie M. Toohey,
Mary E. Wyman.

GASTON SCHOOL.

Mary E. Alden,
Mary B. Barry,
Carrie M. Beckler,
Mabel Bisbee,
Annie Britt,
Jennie Christian,
Nellie E. Chubbuck,
Gertrude R. Clark,
Mary F. Cook,
Maggie T. Daley,
Mary L. Field,
Alice E. Guild,
Mabel I. Henderson,
Amanda H. Kennedy,
Minnie L. Locke,
Ella M. Lovering,
Nellie T. McGlinchy,
M. Alice Metcalf,
Nannie T. Morrison,
Jennie F. Neily,
Ada L. Noyes,
Alice A. Page,
Della G. Putnam,
Mary E. Richards,
Laura E. Small,
Lizzie Smith,
Alice L. Sprague,
Fannie A. Wood,
Mary E. Morris.

GIBSON SCHOOL.

Boys.

H. Winslow Davenport,
Thomas J. Dillon,
Willard H. Fobes,
Daniel Mahoney,
Patrick Turley,
Francis W. Wardner,
Elmer E. Woods.

Girls.

Margaret E. Dillon,
Annie L. Dorr,
Mary L. Fobes,
Mary Shurtleff,
Amanda R. Wood.

HANCOCK SCHOOL.

Eliza J. Bryan,
Mary E. Clemens,
Mary A. Collins,
Elizabeth C. Harding,
Lucy M. A. Moore.

HARRIS SCHOOL.

Boys.

Arthur E. Atwood,
John H. Bailey,
Charles F. Hildreth,
William T. Mann,
William Shallenback,
Frederic A. Vinal,
James Wood.

Girls.

Alice T. Clark,
Georgietta Emerson,
Susie C. Hosmer,
Bertha R. Lewis,
Marion K. Lewis,
Mary R. Ordway.

CHARLESTOWN-HARVARD SCHOOL.

Boys.

Cornelius Crowley,
Michael Joseph Hickey,
Charles Frederick Jaquith,
Michael James McCarthy,
George Elmer Rogers,
Joseph Henry Regan,
Geo. McKenzie Richardson,
Charles Edward Shackford,
Joseph Smith,
Arthur Wilson Savage.

Girls.

Ellen Maria Ayres,
Caroline Boles Morse,
Matilda Atkins Paine.

BRIGHTON-HARVARD SCHOOL.

Annie M. Dupee,
Nellie M. Rice,
Ida L. Wilkins.

HILLSIDE SCHOOL.

Margaret Barton,
Anna Brennan,
Maria Kingsley Chadwick,
Susie Bradshaw Craig,
Helen Josephine Gately,
Louise Camelia Gooch,
Mary Emma Handy,
Edith May Hodgman,
Mary Hall Kimball,
Caroline Lawrence Matthews,
Hermine Nolte,
Carrie Luthera Perkins.

LAWRENCE SCHOOL.

William H. J. Crudden,
Thomas H. Cochran,
Edward A. Curtin,
Edward J. Colbert,
Edward G. Donegan,
Thomas M. Dowsley,
John H. Flynn,
Cornelius A. Foran,
Patrick H. Galway,
Frank J. Havlin,
James A. Hearn,
Henry A. Horgan,
William G. Irwin,
Thomas J. Kelley,
Francis M. Lencham,
Joseph F. Lynch,
James L. McCabe,
John H. McCloud,
James R. McDermott,
James McKeenen,
Patrick S. McDonough,
Thomas V. Ryan,
James H. Sullivan,
William S. Thornton,
Stephen F. Toole,
Thomas J. Toole,
Andrew A. Wilkinson.

LEWIS SCHOOL.

Boys.

Winthrop Alexander,
John Herman Bath,
Henry Francis Barrett,
Nathan Conant Dow,
George W. Frothingham,
Oliver Ditson Greene,
Thomas John Gunning,
Franklin Noyes Hodgdon,
David Fay Laws,
Harry Curtis Lunt,
John Ingalls Munroe,
William Henry Partridge,
John Henry Peak, Jr.,
William Stanton Rumrill,
Alexander Benj. Sutherland,
Frederic Augustus Whitney,
Geo. Bowen Williams,
Roland Worthington, Jr.,
Harry Haskell Wyman.

Girls.

Sybil Bacon Aldrich,
Edith Austin,
Anna Florence Bayley,
Annie Lane Burr,
Nellie Gilmore Clark,
Nellie Gertrude Emery,
Hattie Elizabeth Friel,
Annie Amelia Gill,
Alice Belle Greene,
Alice Holmes Harlow,
Almira Emily Hart,
Clara Isabel Huse,
Katie Josephine Kearns,
Fannie Florence Leet,
Caroline Celestia Morgan,
Laura Raymond Reed,
Ellen Hobart Thacher,
Jannette Wales,
Laura Augusta Wilson,
Ella Annette Johnson,
Annie Catharine Murray.

LINCOLN SCHOOL.

Michael F. Cadegan,
Hiram W. Cherrington,
William E. Clark,
William J. Dee,
Edward N. Flaherty,
Matthew Flaherty,
Joseph L. Foley,
Thomas J. Giblin,
Frank A. Graves,
Charles E. Herendeen,
Nelson J. Innes,
Lawrence J. Johnson,
John Kennaly,
Elmer B. LaForme,
Leo R. Lewis,
Charles S. Maynard,
Freeman McKenzie,
Henry P. Nash,
Samuel D. Prince,
Alfred E. Sloane,
Edgar F. Stevens,
Richard Whight,
Walter Whittredge,
Fred M. Wood.

LOWELL SCHOOL.

Boys.

Frederic L. Houghton,
William A. Lingham,
Edward W. Pattee,
George F. Sadler,
Frank H. Scammon,
William R. Spenceley,
Charles P. Albrecht.

Girls.

Clara L. Borland,
Harriet J. Bigelow,
Josie P. Coffin,
Annie F. Day,
Pauline A. Duard,
Lillian F. Holmes,
Mary J. McCormick,
Effie F. Marden,
Katie J. Owens,
Annie M. Rider,
Annie M. Rogers,
Katy A. Tierney,
Annie L. Weeks.

LYMAN SCHOOL.

Boys.

Arthur G. Coombs,
Louis W. Constantinides,
Daniel F. Harrigan,
Frank C. Heney,
John F. Kiley,
Ira M. Mosher,
George M. Perkins,
Edwin N. Ray,
Charles F. Simmons.

Girls.

Estella Anderson,
Mary E. Bartley,
Mary E. Davidson,

Lenora A. Gould,
Elizabeth J. Hamlin,
Mary A. Hevey,
Carrie A. Keith,
Josephine A. Monahan,
Emma A. Ordway,
Hannah L. R. Sherman,
Eunice A. Ward.

MATHER SCHOOL.

Boys.

George Albert Hall,
James Edward Robinson,
Edward Eugene Clexton.

Girl.

Mary Josephine Murphy.

MAYHEW SCHOOL.

James Cahlane,
Francis A. Carr,
John A. Doherty,
Richard R. Doherty,
Isidore Freedman,
Edward W. Hamilton,
Frederick O. Harriman,
Fred Haskell,
Dennis W. Hurley,
Patrick I. Lucas,
James C. McCaffrey,
Daniel F. McDonnell,
John L. Morgan,
Charles A. Peterson,
Peter J. Riley.

MINOT SCHOOL.

Boys.

Wilbur James Butland,
Walter Whitman Conant,
Henry Herbert Eldredge,
Wm. Herbert Hayward,
James Morton Hannum,
Joseph Francis Marshall.

Girls.

Julia Ann Baxter,
Bertha Victoria Muzzy,
Alice Matilda Murphy,
Alice Howard Packard,
Marian Grey Starbird.

MOUNT VERNON SCHOOL.

Boys.

William P. Bowman,
Augustus E. Dennett,
George K. Dennett,
Malachi Donlon,
John Rafferty,
William C. Richards,
Ernest H. Smith.

Girl.

S. Abbie Stone.

NORCROSS SCHOOL.

Mary Janet Buckley,
Margaret Ann Buckley,
Annie Elizabeth Corcoran,
Julia Gertrude Curry,
Agnes Evelline Duncan,
Maria K. B. Dukelow,
Margaret Agnes Flahey,
Joanna Louisa Foote,
Emily Louisa Gibson,
Addie Florence Gault,
Annie Maria Griffin,
Amelia Magdalena Hanley,
Mary Isabella Hayes,
Sarah Frances Holland,
Mary Loretta Kelliher,
Emma Blanche Maloney,
Mary Collette McDonald,
Hannah Aloysius McLauthlin,
Catherine Ann McCarthy,
Jane Francis O'Neill,
Elizabeth Louise O'Neill,
Annie Frances Rogers,
Minnie Elizabeth Sampson,

Katharine A. Sullivan,
Theresa Frances Sullivan,
Mary Ellen Welch.

PHILLIPS SCHOOL.

Arthur C. Badger,
James A. Barker, Jr.,
William H. Bond,
Charles H. Farnham,
Harry A. Ford,
Herbert M. Ford,
Richard H. McCombe,
John M. Mullowney,
Charles W. Parker, Jr.,
William J. Ross,
Charles E. F. Safford,
Winfield S. Smith,
Dennis J. Sullivan,
James A. Swan,
Joseph Waterhouse.

PRESCOTT SCHOOL.

Boys.

Andrew W. Bond,
Fred W. Bourne,
Charles Callahan,
Albert E. Corthell,
James N. Garratt,
Charles N. Hamblin,
Charles F. Johnson,
James H. Kenney,
Patrick H. Lane,
John E. McLaughlin,
Douglass Moreland,
William O'Donnell,
Reuben Peterson,
John M. Porter,
Edward F. Rice,
Almon L. Richardson,
Franklin Russell,
Arlbery N. Shute,
Elmer B. Smith,
George A. Verge.

Girls.

Ruth H. Adams,
Eliza J. Anderson,
Lizzie E. Andrews,
Fannie M. Baker,
Mabel J. Fewcor,
Annie L. Gove,
Lillian T. Gribbon,
Mary A. Jantzen,
Nellie Parsons.

CHARLESTOWN-PRESCOTT SCHOOL.

Boys.

James Herbert Emery,
James Lewis Faunce,
George Ellsworth Gardner,
Edgar Forsyth Hanscom,
Henry Franklin Johnson,
Charles Wesley Lee,
Daniel Joseph O'Connor,
Lawrence Grenville Ripley,
William Arthur Snow,
William Harmond Varrill.

Girls.

Nellie Jane Breed,
Laura Emma Fall,
Winnie Delle Harrison,
Jennie Morrison Jerauld,
Annie Foster Littlefield,
Mary Elizabeth Mailman,
Maggie Isabel O'Neil,
Carrie Adele Pease,
Fannie Louise Waterhouse.

QUINCY SCHOOL.

Albert Barlon,
Edward Aloysius Casey,
James Matthew Conboye,
Jeremiah Andrew Courtney,
Thomas Francis Devine,
Jeremiah Patrick Foley,
John Joseph Howard,
Ernest Hyland,

John Joseph Harrington,
John Stephen Kelliher,
John Joseph Manning,
Joseph John May,
Thomas Francis McAuliffe,
Frank O'Connor,
Thomas Owens,
William Fred Ryan,
William Michael Scanlan,
Charles Strecker,
Maurice Joseph Sullivan,
Peter Joseph Welton.

RICE SCHOOL.

Addison L. Aldrich,
Harry T. Allen,
Horace D. Arnold,
William H. Baldwin,
Dwight Braman,
Grenville D. Braman,
William A. Briggs,
Albert Cummings,
Charles W. Danver,
Harry S. Draper,
Charles B. Frost,
Charles B. Douglass,
William Frost,
William H. Fogg,
Francis B. W. Folsom,
Noah L. Fowler,
George G. Goodrich,
Willie T. Hall,
Richard J. Hayes,
William G. Henry,
Brent E. Johnston,
George K. Kendall,
Charles H. Leach,
Charles U. Mayo,
Gardner E. Murphy,
George B. Nicholson,
George S. Perry,
Charles A. Polley,
Walter B. Pope,
Jerome Z. Smith,
Herbert Stebbins,
Frank B. Weeks,
Elmer G. Whitney,
Arthur B. Whiting,
Thomas Wilbor,
Harry C. Young,
David F. Zerrahn.

SHERWIN SCHOOL.

Boys.

Samuel W. Berry,
William C. Campbell,
Owen F. Finnnan,
Eugene Guyot,
Thomas W. Havey,
William H. Kenah,
John W. Laming,
James W. McConnell,
Thomas J. Mahan,
John F. M. O'Neil,
John E. Thompson,
Robert Weiner,
Henry F. Welch,
Seth V. White,

Girls.

Lilla E. Bennett,
Nellie L. Corbett,
Josephine I. Gallagher,
Mary M. Hanscom,
Elizabeth Mitchell,
Mary E. Maguire,
Katie E. Riley,
Emma A. Russ,
Hannah Sterne,
Minnie J. Smith,
Maggie C. Sheehan,
Honora Wolfson.

SHURTLEFF SCHOOL.

Maria L. Ames,
Katie L. Barrett,
Katie F. Benton,
Cora L. Bicknell,
Edith M. Bradford,
Grace E. Cross,

Nellie F. Doherty,
Annie Dunn,
Hattie M. Fairfield,
Emma E. French,
Violetta Gustin,
Louise G. Hicks,
L. Estelle Hill,
Edith K. Hodsdon,
Georgie V. Johnston,
Daphne Kalopothakes,
Lizzie A. Kimball,
Eugenie M. LeFevre,
Susie A. Mayo,
Jennie E. Mayo,
Genevieve Moffette,
Emelie L. Palmer,
Abbie D. N. Parker,
Maggie J. Parker,
Anna M. Roys,
Galla E. Shea,
Nellie S. Tarbell,
Clara J. Tobin,
Maria L. Tyler.

STOUGHTON SCHOOL.

Boys.

Bernard McGovern.
Robert Franklin Murray,
Henry Arnold Pope,
Albert De Lance Porter.

Girls.

Lizzie Clapp Esty,
Mary Agnes Hart,
Emma Eliza Littlefield,
Annie Swan Pierce,
Harriet Jane Plummer,
Carrie Meta Watson.

TILESTON SCHOOL.

Boys.

Levi Parker Knox,
Edward Francis McIntosh.

WARREN SCHOOL.

Boys.

Norman Y. Brintnall,
George S. Bellows,
Albert H. Burbank,
Charles F. Chase,
Frederic L. Conihe,
Leonard C. Dunnells,
Frank N. Dunnells,
Harry E. Faunce,
Frank A. Heath,
Edwin McGill,
Charles E. Sheafe,
George A. Toppan,
James A. Welch,
William A. Winslow.

Girls.

Ada E. Bolster,
Carrie J. Durkee,
Nellie M. Dunklee,
Jennie F. Dadmun,
Dora K. Hall,
Sarah O. Hall,
Mary F. Higgins,
Martha R. Mann,
Helen L. Merriam,
Ida T. Mülle,
Carrie S. Page.
Agnes G. Power,
Abbie F. Ramsay,
Florence A. Stacey,
Annie E. Smith,
Ella L. Waldron,
Miriam F. Witherspoon,
Carrie E. Wright.

WELLS SCHOOL.

A. Amsden,
J. E. Bickford,
A. G. Burns,
N. J. Byrnes,
A. C. Clarke,
M. E. Crowley,

E. J. Donnelly,
N. E. Donovan,
H. F. W. Hill,
S. L. Irving,
M. C. Jarvis,
I. M. Jenks,
E. LeB. Kettelle,
I. Kingberg,
M. A. Pearson,
E. A. Putnam,
A. M. Scott,
S. A. Turner,
N. E. Weston,
M. L. Wolfe.

WINTHROP SCHOOL.

Annie S. Adams,
Emma H. Adler,
Lillian L. Anson,
Emily L. Clarke,
Sara J. Conboye,
Ida A. V. Dubue,
Eliza H. Endicott,
Mary E. Fee,
Annie L. Fitzgerald,
Ellen M. Holden,
Susan O. Lane,
Edwina G. Libby,
Kittie F. Lyons,
Carrie I. McDonald,
Mary A. Murphy,
Mary K. Murphy,
Eleanor Noonan,
Annie M. Olsson,
Emma T. C. Olsson,
Martha R. Palmer,
Nellie G. Peaslee,
Isabel H. Ricker,
Mary C. Sears,
Margarette E. Shaw,
Jennie E. Smith,
Helen M. Stevens,
Ezza M. Tucker,
Jennette W. Tufts,
Phillipena Zenner,
Annie B. Heustis,
Jennie C. Newcomb.

CHARLESTOWN WINTHROP SCHOOL.

Boys.

Pierce Anderson,
Martin S. Carney,
Stephen J. Collins,
Frank W. Doughty,
William A. Finney,
Arthur W. Hatch,
David H. Lawrence,
Eugene C. Murdock,
John H. Stone.

Girls.

Mary A. Christy,
Janet Clark,
Maria A. Cronin,
Nellie A. Cummins,
Julia A. Dwyer,
Mary E. Ferguson,
Ella F. Hobbs,
Abbie M. Kimball,
Ada Lane.

CATALOGUE

OF THE

BOSTON NORMAL SCHOOL

FOR THE YEAR

1876.

COMMITTEE ON THE NORMAL SCHOOL.

CHARLES HUTCHINS, *Chairman.*
WM. B. MERRILL, *Secretary.*
WM. H. LEARNARD, Jr. ABBY W. MAY.
GEORGE A. THAYER.

BOSTON NORMAL SCHOOL.

TEACHERS.

Head-Master.
LARKIN DUNTON.

First Assistant.
JENNY H. STICKNEY.

Assistant.
FLORENCE W. STETSON.

Teacher of Drawing.
WALTER SMITH.

Teachers of Music.
JULIUS EICHBERG. J. B. SHARLAND.
H. E. HOLT. L. W. MASON.

Teacher of Elocution.
MOSES T. BROWN.

RICE TRAINING SCHOOL.

Principal.
LUCIUS A. WHELOCK.

Sub-Master.
EDWARD SOUTHWORTH.

Usher.
CHARLES F. KIMBALL.

First Assistant.
MARTHA E. PRITCHARD.

Assistants in Grammar Department.
ELSIE J. PARKER. FLORENCE MARSHALL.
E. MARIA SIMONDS. ELLA T. GOULD.
J. ANNIE BENSE. ELIZA COX.
DORA BROWN. MARTHA J. PORTER.
ELLEN M. BARBOUR. ELIZABETH M. BURNHAM.

Assistants in Primary Department.
ELLA F. WYMAN. GRACE HOOPER.
SARAH E. BOWERS. FLORENCE M. PROCTOR.
ELLEN F. BEACH. ANNA B. BADLAM.
EMMA L. WYMAN.

BOSTON NORMAL SCHOOL.

REGULATIONS ADOPTED BY THE SCHOOL BOARD.

SECTION 1. The Boston Normal School is established for the purpose of furnishing an opportunity for such young women as wish to become teachers to receive a thorough course of distinct professional instruction, and to fit themselves for teachers in the public schools in Boston.

SECT. 2. The teachers shall be a head-master, who shall be a graduate of a college in good standing, a first assistant, and as many other assistants as may be found necessary, provided the number of instructors besides the head-master shall not exceed one for every thirty pupils. Special instruction in Music and Drawing shall be given in this school, under the direction of the committees on these departments.

SECT. 3. Candidates for admission must signify in writing their intention to become teachers. A diploma of graduation from either of the Boston High Schools shall be considered evidence of qualification for admission. Candidates not graduates of the Boston High Schools must pass a satisfactory examination in the ordinary High School studies, and must present evidence of good moral character. No candidate shall be admitted to this school who is not at least

seventeen years of age, except by special vote of the committee in charge.

SECT. 4. The Board of Supervisors, in connection with the head-master, shall, from time to time, examine the pupils in the Normal School, and near the close of the school year recommend for graduation those whom they shall deem qualified; and the committee in charge shall grant diplomas to such of those thus recommended as shall have satisfactorily completed the course of study.

SECT. 5. A diploma of graduation from the Normal School, issued after the year 1872, shall entitle the holder to receive a fourth-grade certificate of qualification.

SECT. 6. The text-books used in this school shall be such of the text-books used in the other public schools of the city as are needed for the course of study, and such others as shall be authorized by the Board.

SECT. 7. Any graduate of this school shall have the preference where teachers are to be employed in the public schools, other things being equal; and such graduate, who is also a graduate of a public High School of this city, when so employed, shall receive the same salary for her first and subsequent years of service that others receive for the second and subsequent years.

SECT. 8. This school shall begin the second Monday in September; and shall close on such day of the week preceding the Fourth of July, and with such exercises, as the committee of the school may direct.

SECT. 9. A catalogue of the Normal School shall

be prepared annually, under the direction of the committee in charge, and sent to the members of the School Committee and of the Board of Supervisors, and to the principals of schools.

SECT. 10. When a graduate of this school is appointed as a teacher in any public school of this city, it shall be the duty of the head-master to make, or cause to be made by his assistants, one or more visits to her school for the purpose of criticism and suggestion in regard to her teaching.

SECT. 11. Such instruction shall be given in the Normal School, to teachers in the employ of the city, as the Board may from time to time direct.

TRAINING DEPARTMENT.

SECTION 12. The Rice Training School is designed to furnish an opportunity for the pupils of the Normal School to obtain a practical knowledge of the methods of instruction and discipline in the public schools of Boston.

SECT. 13. The Committee on the Normal School shall have charge of the Training School.

SECT. 14. The head-master of the Normal School shall have the direction of the observation, practice, and methods of instruction in the Training School, subject to the approval of the committee in charge.

SECT. 15. The principal of the Training School shall perform in that school the usual duties of master of a Grammar School, and such duties in connection with the Normal School as the committee in charge may direct.

SECT. 16. The number and grades of teachers other than principal, and the course of study, in the Training School, shall be the same as in the Grammar and Primary Schools of the city.

COURSE OF STUDY.

The course of study in this school is arranged for one year, and is as follows: —

1. Mental and Moral Science and Logic.
2. Principles of Education, School Management, and Methods of Instruction.
3. Physiology and Hygiene.
4. Physics and Natural History, with reference to Objective Teaching.
5. Language; its history, acquisition and analysis.
6. Grammar School Studies, with reference to teaching.
7. Drawing, and its use as a means of illustration in teaching, and Vocal Music.
8. Observation and Practice in the Primary and Grammar Departments of the Training School.

It is expected that the pupils of good ability and good health, who are constant in their attendance, and who devote themselves earnestly and exclusively to their school duties, will be able to complete this course in one year.

ESTABLISHMENT.

A Normal School was established in 1852 by the the City Council, on the recommendation of the School

Board, as a part of the public-school system of Boston. This school was "designed to prepare teachers thoroughly and systematically for the efficient discharge of those duties that they would be daily called upon to perform." In 1854 the School Board, with the view of adapting the school to the double purpose of giving to its pupils High School and Normal instruction, caused "the introduction of a few additional branches of study, and a slight alteration in the arrangement of the course," and called it the Girls' High and Normal School. The school was continued under this name till 1872, at which time the School Board, finding that the Normal element had been gradually absorbed by the High School, and had "almost lost its independent, distinctive and professional character," "separated the two courses, and returned the Normal School to its original condition, as a separate school." Since then, under the name of the Boston Normal School, its sole work has been the fitting of young women for the office of teaching.

TRAINING DEPARTMENT.

During the past year the Rice District has been constituted a Training School, where the Normal pupils are to have an opportunity of gaining, by observation and practice, a familiar acquaintance with the discipline and instruction of the Boston schools. This supplies an urgent and long-felt want. The Training School contains twelve Grammar and seven Primary classes, numbering over a thousand pupils.

LOCATION.

The Normal School is to occupy the upper floor of the school-house on Dartmouth street; and the Training School the first and second floors of that building, and also the school-house on Appleton street.

CONDITIONS OF ADMISSION.

A diploma of graduation from either of the Boston High Schools is accepted, without examination, as proof of qualification for admission to this school. The three years' course of study in the Girls' High School, which pupils are required to complete before receiving a diploma from that school, is as follows: —

Junior Class.

English. — Rhetoric (Haven's). Literature (English and American authors). Composition.

Mathematics. — Algebra (Bradbury's).

Science. — Physiology (Hutchison's). Botany (Gray's).

Languages. — Latin (Harkness' Grammar and Reader); or French (Bocher's Otto's Grammar and Reader); or German (Krauss' Grammar and Whitney's Reader).

Drawing and Music.

Middle Class.

English. — Literature (English and American authors). Composition.

History. — Ancient (Lectures and Books of Reference).

Mathematics. — Geometry and Plane Trigonometry (Bradbury's).

Science. — Chemistry (Eliot, Storer and Nichols'), Mineralogy.

Languages. — Latin (as before, with Latin School series); or French (as before, with Corneille's Cid); or German (as before, with Schiller's Wilhelm Tell).

Drawing and Music.

Senior Class.

English. — Shakespeare. Composition.

History. — Modern (Lectures and Books of Reference). Constitution U. S. (Alden's Science of Government).

Philosophy. — Ethics (Peabody's Moral Philosophy).

Science. — Physics (Balfour Stewart's). Astronomy (Kiddle's).

Languages. — Latin (Æneid). French (Moliere, Racine). German (Goethe, Hermann and Dorothea).

Drawing and Music.

Candidates for admission to the Normal School, who are not graduates of either of the Boston High Schools, are required to pass an examination in this or an equivalent High-School course. An examination of such candidates will be held, at the schoolhouse on Dartmouth street, the Friday before the second Monday in September, at 10 o'clock A. M. Graduates of the Boston High Schools will present

themselves, with their diplomas, on the second Monday in September.

AGE OF ADMISSION.

The minimum age for admission is fixed by the School Committee at seventeen; but candidates under eighteen are advised to spend another year, if possible, in High-School study before entering. The work of the Normal School is of such a nature as to require considerable maturity of mind; and it is found that students over eighteen years of age usually succeed much better than those younger.

TUITION.

The rule of the School Board in regard to the payment of tuition by non-resident pupils, applicable to the Normal School, as well as the other public schools of the city, is as follows: —

"All children living in the city who are upwards of five years of age, and are not disqualified by non-compliance with the regulations of the Board, shall be entitled to attend the public schools; but neither a non-resident pupil, nor one who has only a temporary residence in the city, shall be allowed to enter or to remain in any school, unless the parent, guardian, or some other responsible person has signed an agreement to pay the tuition of such scholar, or until a certified copy of a vote of the Committee on Accounts, permitting such scholar to attend the school, has been transmitted to the principal. The principals shall, at the commencement of each term, furnish to the Com-

mittee on Accounts the names of such scholars, and of their parents or guardians, with their place of residence. And it shall be the duty of that committee each term to make out such bills and transmit the same to the City Collector for collection."

NECESSITY FOR ATTENDANCE.

The following extracts from the Regulations of the Public Schools of the City of Boston will show the relation of the Normal School to the work of teaching in Boston: —

"The Board of Supervisors shall not admit to an examination [of applicants for situations as teachers] any person who is not a graduate of the Boston Normal School or of one of the State Normal Schools, or who has not had at least one year's experience in teaching; but pupils who have taken the three years' course in any of the High Schools of this city, before the close of the school year 1875, shall not be excluded from such examination."

"The Board of Supervisors shall grant certificates of qualification of the several grades, after examination, to such candidates as they shall consider entitled to them, as follows: —

"*First Grade*, to head-masters, masters, sub-masters and ushers of the Normal and High Schools.

"*Second Grade*, to masters, sub-masters and ushers of the Grammar Schools.

"*Third Grade*, to assistant principals, first, second, third and fourth assistants of the Normal and High Schools.

"*Fourth Grade*, to first, second and third assistants of the Grammar Schools.

"*Fifth Grade*, to fourth assistants or teachers of Primary Schools.

"*Special Grade*, to all male instructors of the evening schools."

"No instructor shall be employed in any higher grade of schools than that for which the certificate shall qualify the holder thereof; and no instructor whose certificate is not recorded in the office of the Committee on Accounts shall be entitled to draw any salary as a teacher or as a substitute; and the auditing clerk shall not allow the name of any such teacher or substitute to be entered or to remain on the payrolls."

VACATIONS.

The vacations and holidays of this school are as follows: — Every Saturday; one week commencing with Christmas day; New Year's day; the twenty-second of February; Good Friday; Fast day; Decoration day; the Fourth of July; Thanksgiving day and the remainder of the week; the week immediately preceding the second Monday in April; and from the close of the school, the week preceding the Fourth of July, to the second Monday in September.

TIME OF ADMISSION.

Only one class is admitted to this school during the year, and that is admitted at the beginning of the school year. Pupils are not received at other times.

The work of the school is so conducted that it is impossible for pupils to make up lessons lost at the beginning of the term, so that it is necessary for all who desire to enter during the year to be present at the opening of the school in September.

GRADUATES

OF THE

BOSTON NORMAL SCHOOL.

Class of 1873.

Adams, Lavina E. . . .	*5 Pinckney Street.*
Backup, Mary J. . . .	*32 Auburn St., Highlands.*
Badlam, Anna B. . . .	*13 Ferdinand Street.*
Bailey, Elizabeth G. . . .	*167 W. Third St., S. B.*
Bell, Helen M.	*89 Washington Street.*
Bickford, Endora F. . . .	*1 Causeway Street.*
Blanchard, Fannie . . .	*Wilmington.*
Boston, Hattie E. . . .	*2 Goodwin Pl., Revere St.*
Brown, Ellen M. . . .	*Union Ave., Mt. Bowdoin.*
Colligan, Lizzie A. . . .	*1996 Wash. St., B. H.*
Crosby, Matilda F. . . .	*347 Third Street, S. B.*
Davies, Ida H.	*89 Camden Street.*
Davis, Frances M. . . .	*42 Marcella Street, B. H.*
Dolan, Mary A. A. . . .	*81 Athens Street, S. B.*
Farrington, Mary A. . . .	*Allston, Mass.*
French, Mary F. . . .	*Quincy, Mass.*
Gill, Frances W. . . .	*40 Palmer Street, B. H.*
Gillespie, Annie M. . . .	*3 North Hudson Street.*
Gowing, Julia A. . . .	*109 Green Street.*
Guild, Mary Ella . . .	*Minot Street, Neponset.*
Haven, Carrie A. . . .	*122 E. Dedham Street.*
Hayward, Laura K. . . .	*Malden.*
Hill, Henrietta A. . . .	*36 Auburn Street.*
Hooker, Clara	*Brighton.*
Huckins, S. Lila . . .	*Box 66, Harrison Square.*

Jackson, Ella T.	*19 Ashland Place.*
Kelley, Frances T.	*43 Belmont Street, B. H.*
Kendall, Ida F.	*Harrison Square.*
Leary, Maggie J.	*218 Fifth Street, S. B.*
Lee, Isabel F.	*Minot Street, Neponset.*
Levi, Miriam	*143 Dover Street.*
Lewis, Mary L.	*Hyde Park.*
Macdonald, Anna	*6 Parker Place.*
May, Alice M.	*277 Warren Street, B. H.*
McGowan, Katie E.	*88 Green St., Charlestown.*
Nash, Hannah A.	*Greenfield.*
O'Dowd, Honora T.	*204 Endicott Street.*
Ordway, Lizzie	*Harrison Square.*
Park, A. Lizzie	*Norwood.*
Porter, Electa M.	*173 Emerson Street, S. B.*
Preble, Harriet I.	*12 Spring Street.*
Proctor, Florence M.	*41 Appleton Street.*
Putnam, Helen A.	*608 E. Sixth Street, S. B.*
Sanborn, Lizzie A.	*220 Ruggles Street.*
Sanford, Nellie G.	*75 Newland Street.*
Scanlan, Bridget E.	*23 Newbern Street, B. H.*
Snow, Clara J.	*3 Fort Avenue.*
Stevens, Laura M.	*10 Derne Street.*
Story, Anna L.	*705 Broadway, S. B.*
Thacher, Isabel	*46 Clifford Street, B. H.*
Turner, Ella A.	*Washington Street, Malden.*
Withey, Emily W.	*52 Brattle St., Cambridge.*

Class of 1874.

Abbott, Jennie	*82 F Street, South Boston.*
Adams, Sarah Louise	*East Lexington.*
Ashley, Cora I.	*9 Porter Street.*
Baker, Ella	*8 Clairmont Park.*
Baker, Carrie L.	*3 Milford Street.*
Bent, Nathalia	*Canton, Mass.*
Bingham, Delia	*390 E. Friend Street, Columbus, Ohio.*

Bradley, Anna J.	*Curtis Street, B. H.*
Bradley, Mary	*Curtis Street, B. H.*
Challis, Julia	*75 Essex Street, Chelsea.*
Chittenden, Ella L.	*491 Federal Street.*
Conley, Mary E.	*8 E. Springfield Street.*
Copeland, Mary C.	*Brockton, Mass.*
Crozier, Annie M.	*223 Main St., Charlestown.*
Cushing, Alice M.	*32 Telegraph Street.*
Cutter, Lucy R.	*Harrison Square.*
Dean, Maria L.	*Melrose.*
Dole, Melissa M.	*Brighton District.*
Donegan, Marcella E.	*97 Salem Street.*
Drew, Annie E.	*30 Pleasant Street.*
Edwards, Clara	*115 Mt. Pleasant Avenue.*
Fitzgerald, Kate E.	*218 Athens Street, S. B.*
Graham, Sarah M.	*Lexington.*
Harrington, Ellen E.	*Lexington.*
Hayden, Carrie W.	*Braintree.*
Hildreth, Emily E.	*63 North Ave., Cambridge.*
Hill, Silence A.	*36 Auburn Street.*
Holbrook, M. Ava	*1 Highland Park Avenue.*
Holbrook, Emma L.	*1 Highland Park Avenue.*
Howe, Florence A.	*1 Glenwood Place.*
Johnson, Lucy E.	*515 E. Fifth Street, S. B.*
Littlefield, Hattie A.	*9 Dallas Place.*
Mann, Mary E.	*Bowdoin Square, Dor.*
McDermott, Nellie C.	*107 Vernon Street.*
Mitchell, Annie M.	*45 Russell Place.*
Mulliken, Mary E.	*4 Malbon Place.*
Mulrey, Elizabeth D.	*1045 Shawmut Avenue.*
Noyes, Eliza R.	*96 Washington Street.*
Noyes, Helen M.	*Washington Street, Dor.*
Olmstead, Emma C.	*9 Cordis St., Charlestown.*
Pickering, Amanda	*235 Warren Street.*
Powers, Mary B.	*565 E. Eighth Street, S. B.*
Ramsay, Helen E.	*201 Main St., Charlestown.*
Riley, Margaret F.	*95 W. Springfield Street.*
Shepherd, Marietta D.	*6 Jay St., Cambridgefield.*

Stetson, Annabel . . .	*Brunswick, Maine.*
Summers, Catherine S. . .	*Jamaica Plain.*
Swett, Persis I.	*Brighton District.*
Soule, Ella F.	*9 Lake View Ave., Camb.*
Tapley, Emma C. . . .	*4 Forrest Place, Charlestown.*
Torrey, Emmeline E. . .	*19 Winthrop Street.*
Towle, Mary E. . . .	*16 Margaret Street.*
Viles, Laura E.	*20 New Faneuil Hall.*
Wallace, Ellen L. . . .	*Weymouth.*

Class of 1875.

Bickford, Hattie A. . . .	*Cor. Main & Green Streets, Charlestown.*
Bill, Hattie P.	*Waltham.*
Blanchard, Annie R. . . .	*Box 1645 Boston P. O.*
Blanchard, Mary W. . . .	*8 Mt. Vernon St., Charles'n.*
Brown, Helen L. . . .	*Woburn.*
Browning, Mary L. . . .	*12 Fountain Street.*
Chadbourne, Lizzie S. . .	*Payson Ave., Dorchester.*
Colburn, Mary E. . . .	*11 Burroughs Place.*
Copeland, Josephine E. . .	*3 Auburn Sq., Charlestown.*
Crooke, Flora I. . . .	*234 Princeton Street, E. B.*
Cunningham, Mary T. . .	*36 Newbern Street.*
Cullen, Frances E. . . .	*13 Telegraph Street, S. B.*
Deane, Mary E. . . .	*2748 Washington Street.*
Deane, Sarah L. . . .	*2748 Washington Street.*
Delaney, Mary E. . . .	*140 Chelsea St., Charles'n.*
Dolbeare, Alice G. . . .	*37 Mercer Street, S. B.*
Ellison, Amanda C. . . .	*2717 Washington Street.*
Ellithorpe, Sarah B. . . .	*1129 Washington Street.*
English, Rebecca F. . . .	*4 Arch Street.*
Everett, Lizzie W. . . .	*51 Union Park.*
Flynn, Mary E.	*6 C Street, South Boston.*
Geyer, Susan E. . . .	*42 Cottage Street, E. B.*
Gary, Callie E.	*31 Washington St., Charles'n.*
Hapgood, Abby S. . . .	*19 Cook St., Charlestown.*
Haydn, Lelia R. . . .	*Braintree.*

Hobart, Minnie L. . . .	*East Lexington.*
Hosford, Emma L. . . .	*756 Parker St., Roxbury.*
Kendall, Jennie I. . . .	*Dorchester Ave., Har. Sq.*
Lane, Fannie D. . . .	*457 Dudley Street.*
Leonard, Cora E. . . .	*21 Centre Street, Roxbury.*
Long, Alice H.	*Melrose.*
Mallard, Letta M. . . .	*84 Green St., Charlestown.*
McCean, Ellen E. . . .	*13 Warren Avenue.*
Merrick, Della	*127 Lexington Street, E. B.*
Merrill, Emma L. . . .	*131 Dale Street.*
Mellen, Lucy J. . . .	*709 Seventh Street, S. B.*
Melvin, Effie C. . . .	*422 Main St., Charlestown.*
Morse, Evelyn C. . . .	*222 Northampton Street.*
Murphy, M. Agnes . . .	*3 Chapel St., Roxbury.*
Mullaly, Jennie	*265 Fifth Street, S. B.*
Nichols, Minnie C. . . .	*Cottage Street, Dorchester.*
Nickerson, Fannie A. . .	*5 Washington Place.*
O'Connell, Fannie L. . .	*50 Vale Street.*
Ordway, Annie F. . . .	*3 Romsey Place, Dorchester.*
Overend, Sarah A. . . .	*188 London Street, E. B.*
Parker, Lizzie F. . . .	*Stoneham.*
Patten, Fannie G. . . .	*136 K Street, S. B.*
Peabody, Susie C. . . .	*74 Lexington St., Waltham.*
Rice, Jennie W. . . .	*Hudson.*
Sawyer, Annette W. . . .	*46 Chambers Street.*
Stevens, Lizzie F. . . .	*George St., Charlestown.*
Strout, Alma E. . . .	*17 Camden Street.*
Stumpf, Sarah E. . . .	*640 E. Fourth Street, S. B.*
Titcomb, Mary A. . . .	*132 Tyler Street.*
Weston, Emma M. . . .	*46 Poplar Street.*
Wiley, Cora A.	*284 Main St., Charlestown.*
Woodman, Charlotte . . .	*Woburn.*
Wright, Mattie W. . . .	*Cor. W. Cedar & Revere Sts*

Class of 1876.

Adams, Julia L. . . .	*Belmont.*
Ames, Martha H. . . .	*Canton.*

Badlam, Mary E. . . .	*2 Cottage Place.*
Bell, Frances M. . . .	*148 K Street, S. B.*
Booth, Clara H. . . .	*269 Dorchester St., S. B.*
Bosworth, Lucy M. . . .	*12 Lexington St., Charles'n.*
Bryant, Annie E. . . .	*East Lexington.*
Caswell, Mary L. . . .	*2 Chestnut St., Charlestown.*
Cheney, Jennie A. . . .	*50 Chestnut St., Charles'n.*
Cherrington, Claudine E. . .	*524 Seventh Street, S. B.*
Cornish, Frances A. . . .	*461 Fourth Street, S. B.*
Coulter, Rebecca . . .	*13 Yeoman Street, B. H.*
Crane, Emma F. . . .	*45 Gates Street, S. B.*
Dexter, Florence E. . . .	*33 Blossom Street.*
Driscoll, Mary E. . . .	*Centre Street, J. P.*
Edmands, Anna M. . . .	*59 Quincy Street.*
Esdon, May G.	*Barnet, Vermont.*
Evans, Julia A.	*30 Mercer Street, S. B.*
Fossett, Emma J. . . .	*Roslindale.*
Follan, Rosanna . . .	*Green St., Jamaica Plain.*
Gordon, Agnes	*P. O. Box 66, Lowell.*
Halliday, Ida E. . . .	*98 Marton Street, E. B.*
Harrington, Helen . . .	*Brighton.*
Harris, Susan B. . . .	*136 Warren Street, B. H.*
Haushalter, Katie . . .	*201 Congress Street.*
Hill, Jennie L. M. . . .	*29 Regent Street, B. H.*
Hill, Mary E.	*122 G Street, S. B.*
Hoar, Nellie A.	*Brighton.*
Howe, Mary A. . . .	*36 Auburn Street.*
Ingraham, Adelaide E. . .	*Norwood.*
Kenney, Elma	*111 Saratoga Street, E. B.*
Knott, Susie	*97 Pearl Street, Charlestown.*
Ladd Lizzie B.	*P. O. Box 54, Sharon.*
Lanning, Ella F. . . .	*97 F Street, S. B.*
Lincoln, Minnie L. . . .	*169 Ruggles Street, B. H.*
Littlefield, Annie C. . . .	*124 K Street, S. B.*
McDonald, Elizabeth . . .	*Newbern Street, J. P.*
McGlinchy, Hannah L. . .	*787 Sixth Street, S. B.*
Merrill, Frances M. . . .	*2 Dartmouth Place.*
Morrissey, Mary Lizzie . .	*141 Princeton Street, E. B.*

Morrison, Rebecca . . .	*Hotel Chester, Shawmut Ave.*
Moulton, Helen L. . . .	*Egleston Square.*
Moynihan, Margaret E. . .	*Winchester.*
Nelson, Maria L. . . .	*189 Fifth Street, S. B.*
Nichols, Esther F. . . .	*445 W. Fourth Street, S. B.*
O'Connell, Elizabeth E. . .	*50 Vale Street, B. H.*
Pike, Charlotte Ann . .	*191 Everett Street, E. B.*
Powers Josephine A. . . .	*565 E. Eighth Street, S. B.*
Price, Margarette H. . . .	*Box 233, Newton.*
Reid, Jennie	*Harrison Square.*
Shaw, Nellie L.	*Rockland.*
Shine, Mary E. T. . . .	*108 W. Eighth Street, S. B.*
Smith, Alice T.	*19 Albion Pl., Charlestown.*
Swett, Miriam B. . . .	*7 Dennis Street, Roxbury.*
Tucker, Nellie B. . . .	*98 Lexington Street, E. B.*
Turner, Hattie E. . . .	*Waverley House, Charles'n.*
Turner, Mary Carrie . . .	*204 Athens Street, S. B.*
Vose, Carrie L.	*Box 410 Hyde Park.*
Watson, Mary E. . . .	*42 Belmont Street, B. H.*
Whelton, Annie J. . . .	*13 Delle Avenue, B. H.*
Wilder, Mary Ellen . . .	*9 Winchester Street.*

ROSTER

OF THE

BOSTON SCHOOL REGIMENT.

1876.

ROSTER.

BOSTON SCHOOL REGIMENT.

1876-77.

Colonel. — Edward L. Twombly. (Latin School.)
Lieutenant Colonel. — Geo. L. Forristall. (English High School.)

FIRST BATTALION. — LATIN SCHOOL.

Major. — Joseph M. Gibbons.
Adjutant. — Fred. O. Jackson.
Quartermaster. — Geo. G. S. Perkins.
Sergeant Major. — H. S. Dillinback.

Company A.

Captain. — Walter W. Morong.
First Lieutenant. — Chas. C. Everett.
Second Lieutenant. — John C. Munro.

Company B.

Captain. — Wm. H. Hartwell.
First Lieutenant. — Fred T. Knight.
Second Lieutenant. — William W. Taff.

Company C.

Captain. — Tracy Sturgis.
First Lieutenant. — F. G. Tomlinson.
Second Lieutenant. — V. Y. Loring.

Company D.

Captain. — M. St.C. Wright.
First Lieutenant. — Harry E. Seaver.
Second Lieutenant. — P. N. Bailey.

Company E.

Captain. — Ezra H. Baker.
First Lieutenant. — Charles F. Cutler.
Second Lieutenant. — Edward D. Scott.

Company F.

Captain. — C. J. Cameron.
First Lieutenant. — Allan J. Abbe.
Second Lieutenant. — T. C. Batcheler.

SECOND BATTALION. — ENGLISH HIGH SCHOOL.

Major. — Frank Carlton.
Adjutant. — E. P. Dodd.
Quartermaster. — George E. Dupee.
Sergeant Major. — A. W. Pollard.

Company A.

Captain. — James Ayers.
First Lieutenant. — C. A. Baker.
Second Lieutenant. — E. M. Warren.

Company B.

Captain. — G. A. Barron.
First Lieutenant. — O. N. Brown.
Second Lieutenant. — E. E. Williams.

Company C.

Captain. — F. E. Kendall.
First Lieutenant. — E. E. Fields.
Second Lieutenant. — J. C. Elms, Jr.

Company D.

Captain. — W. S. Simmons.
First Lieutenant. — G. A. Mower.
Second Lieutenant. — G. P. Dane.

Company E.

Captain. — E. W. Shedd.
First Lieutenant. — D. T. Hinkley.
Second Lieutenant. — A. P. Nickerson.

THIRD BATTALION. — ENGLISH HIGH SCHOOL.

Major. — Herbert Pope.
Adjutant. — Arthur P. Ayling.
Quartermaster. — Charles E. Morey.
Sergeant Major. — Louis Gilbert.

Company A.

Captain. — D. F. McGilvray.
First Lieutenant. —Israel M. Barnes.
Second Lieutenant. — Lowell Emerson.

Company B.

Captain. — Frank Huchins.
First Lieutenant. — Geo. R. Foster.
Second Lieutenant. — J. F. Eldridge, Jr.

Company C.

Captain. — Harry E. Parker.
First Lieutenant. — Joseph P. Bassett.
Second Lieutenant. — Henry P. Furber.

Company D.

Captain. — Frank H. Briggs.
First Lieutenant. — Alex. P. Seavey.
Second Lieutenant. — Geo. H. Page.

Company E.

Captain. — Walter F. Wheeler.
First Lieutenant. — Albert P. Smith.
Second Lieutenant. — Samuel Perry.

FOURTH BATTALION. — HIGHLANDS, DORCHESTER, JAMAICA PLAIN AND BRIGHTON.

Senior Major. — John L. Amory (Roxbury High School).
Junior Major. — Walter S. Ufford (Dorchester High School).
Adjutant. — Charles M. Demond (Roxbury Latin School).
Quartermaster. — Nath'l C. Fowler, Jr. (Roxbury High School).
Sergeant Major. — A. Fred. Dunnels (Roxbury Latin School).

COMPANY A. — ROXBURY HIGH SCHOOL.

Captain. — Geo. H. Weeks.
First Lieutenant. — Wm. J. Graham.
Second Lieutenant. — J. H. Hasbrock.

COMPANY B. — DORCHESTER.

Captain. — Louis M. Clark.
First Lieutenant. — L. F. Connor.
Second Lieutenant. — Hermon G. Pierce.

COMPANY C. — ROXBURY HIGH SCHOOL.

Captain. — Wm. A. Stevens.
First Lieutenant. — A. Bacon.
Second Lieutenant. — J. P. Hersey.

COMPANY D. — ROXBURY LATIN SCHOOL.

Captain. — Robert Long.
First Lieutenant. — F. B. Holder.
Second Lieutenant. — E. T. Cabot.

COMPANY E. — ROXBURY LATIN SCHOOL.

Captain. — G. H. Williams.
First Lieutenant. — P. S. Morse.
Second Lieutenant. — G. H. L. Sharp.

COMPANY F. — DORCHESTER HIGH SCHOOL.

Captain. — M. McEttrick.
First Lieutenant. — Theo. Parker.
Second Lieutenant. — Fred. H. Pope.

COMPANY G. — BRIGHTON HIGH SCHOOL.

Captain. — E. Porter.
First Lieutenant. — H. W. Bird.
Second Lieutenant. — G. A. Pratt.

COMPANY H. — WEST ROXBURY HIGH SCHOOL.

Captain. — George A. Albro.
First Lieutenant. — C. F. Sturdevant.
Second Lieutenant. — ——— ———.

FIFTH BATTALION. — CHARLESTOWN HIGH SCHOOL.

Major. — James Lunt.
Adjutant. — Henry Porter.
Sergeant Major. — William L. Barber.

Company A.

Captain. — Mark Field.
First Lieutenant. — A. Robinson.
Second Lieutenant. — Henry Todd.

Company B.

Captain. — Webster Norris.
First Lientenant. — Edward Strand.
Second Lieutenant. — Edgar Hatch.

SCHEDULE OF SALARIES.

FIRST GRADE.

HIGH SCHOOLS.

Head Masters,	first year	$3,500;	subsequently	$4,000
Masters,	" "	2,800;	"	3,200
Sub-Masters,	" "	2,200;	"	2,600
Ushers,	" "	1,700;	"	2,000

SECOND GRADE.

GRAMMAR SCHOOLS.

Masters,	first year,	$2,800;	subsequently	$3,200
Sub-Masters,	" "	2,200;	"	2,600
Ushers,	" "	1,700;	"	2,000
Exception, Master of Dudley School for Girls, by special vote				2,000

THIRD GRADE.

HIGH SCHOOLS.

Assistant Principal (female)	$2,000
First Assistants "	1,800
Second " "	1,500
Third " "	1,200
Fourth " "	1,000
Assistants in Normal School, each, female	1,500

FOURTH GRADE.

GRAMMAR SCHOOLS.

First Assistants (female)	$1,200
Second First Assistants, (female)	1,000
Second Assistants, (female)	850
Third Assistants, 1st year, $600; 2d year, 700; subsequently (female)	800

FIFTH GRADE.

PRIMARY SCHOOLS.

Fourth Assistants, first year, $600; second year, $700; subsequently	$800

SPECIAL GRADE.

Director of Music	$3,300 00
District Teachers of Music	3,000 00
Teacher of Music in W. Roxbury and Brighton	1,800 00
Director of Drawing	3,300 00
District Teachers of Drawing	2,500 00
Assistant Drawing Teacher, Dorchester (female)	1,700 00
" " " Roxbury High "	700 00
" " " Girls' High "	1,000 00
Teacher of Chemistry, Girls' High "	1,500 00
Assistant in Chemistry, " " "	800 00
Teacher of Physical Culture "	600 00
Teacher of French, Latin and English, High Schools, 25 hours	3,200 00
" " Girls' High School, 7½ hours	750 00
" " Dorchester High School, 6 hours	600 00
" " Roxbury " " 6 "	600 00
" " Charlestown " " 6 "	600 00
" " Brighton " " 2½ "	250 00
" German, Latin School, 2 hours	200 00
" " Girls' High School, 7½ hours	750 00
" " Dorchester High School, 6 hours	600 00
" " Roxbury " " 6 "	600 00
" " W. Roxbury " " 5 "	500 00
Principal Deaf-Mute School (female)	1,500 00
First Assistant, Deaf-Mute School (female)	900 00
Assistants, first year, $700; subsequently (female)	800 00
Teachers Licensed Minors and Kindergarten, first year, $600; second year, $700; subsequently (female)	800 00
Assistant in Kindergarten School (female)	400 00
Instructor Military Drill	1,500 00
Extra Teacher for Mathematics	1,000 00
Sewing for each Division	87 50
Principal Evening High School (per night)	10 00
Assistants " " " "	5 00
Principals " Drawing Schools (per night)	10 00
Assistants " " " "	5 00
Principals " Schools "	3 00
Assistants " " "	1 00

DESCRIPTION AND DEDICATION

OF THE

WINTHROP GRAMMAR SCHOOL-HOUSE,

CHARLESTOWN DISTRICT.

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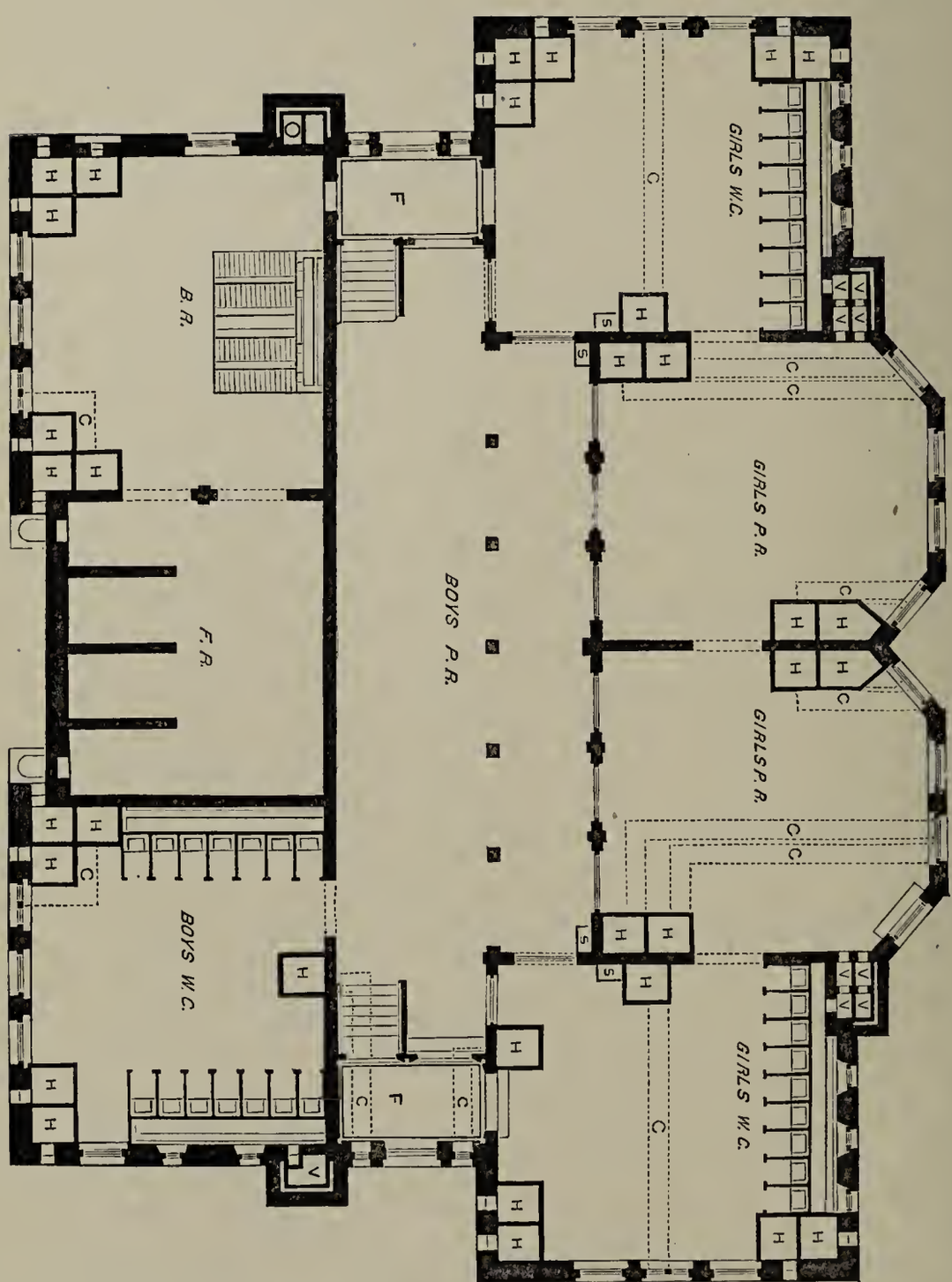
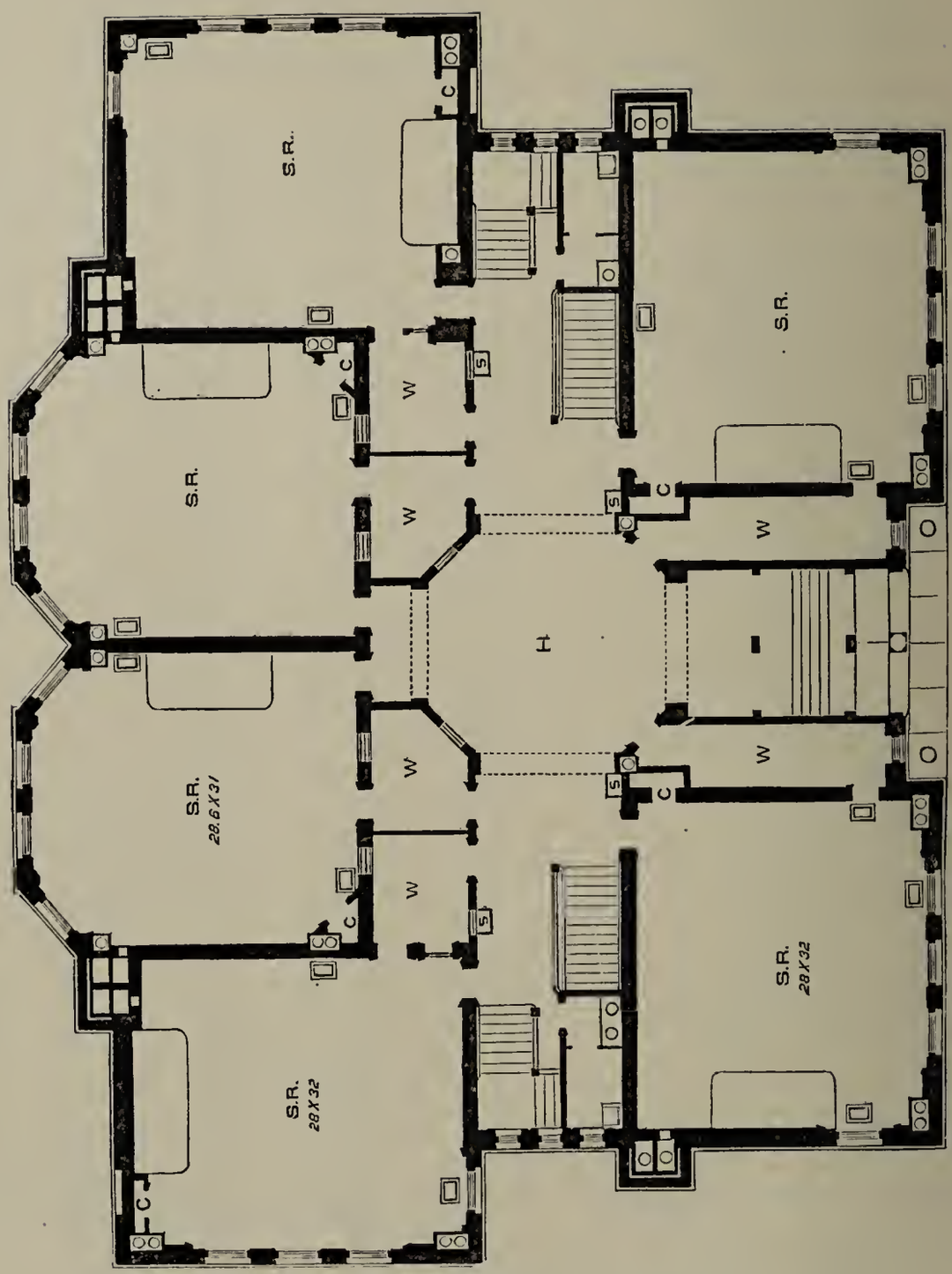


CHARLESTOWN-WINTHROP GRAMMAR SCHOOL-HOUSE, BOSTON.

BASEMENT.

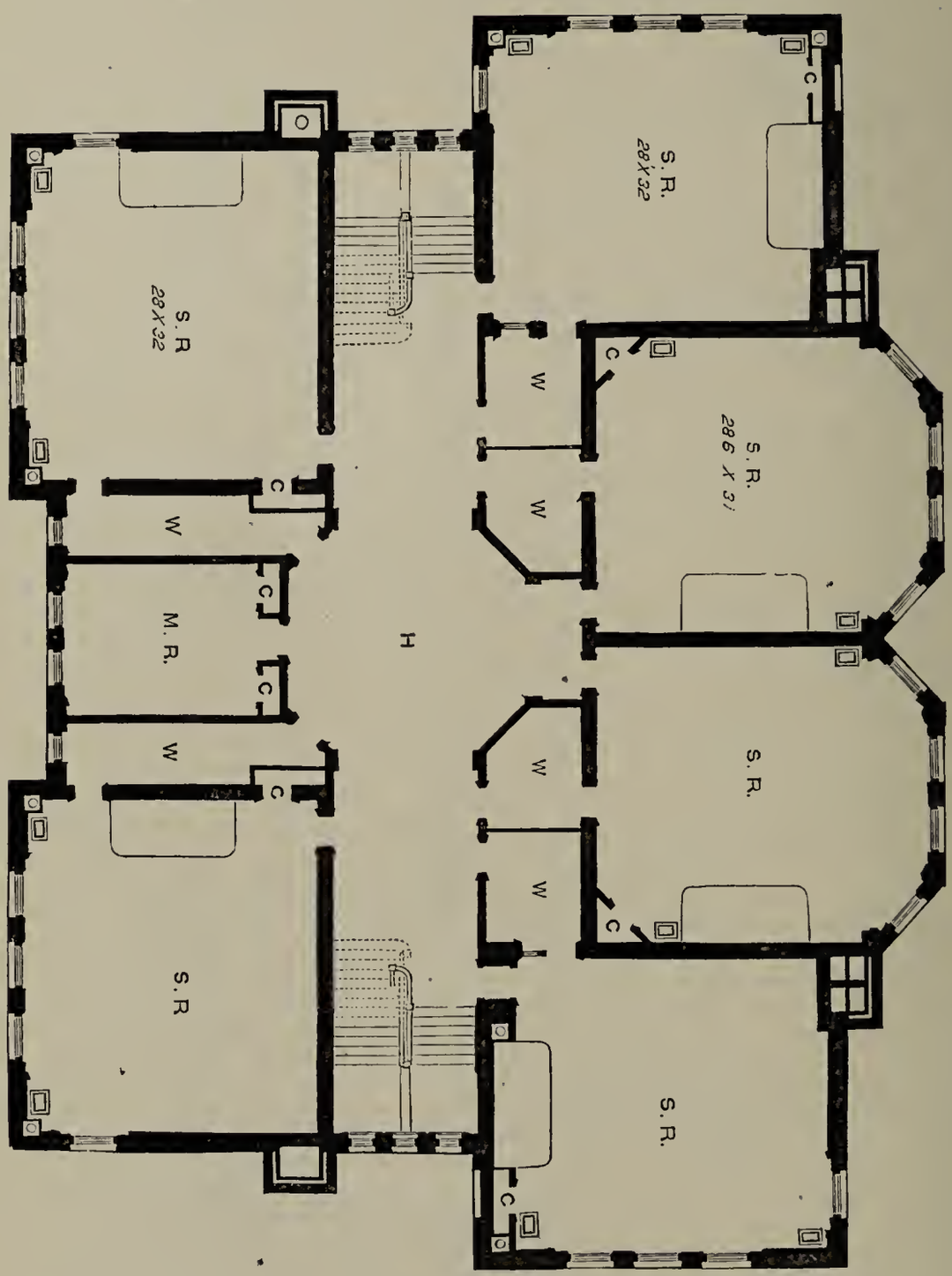
P.R. Play Room.
W.C. Water Closets.
F.R. Fuel Room.
B.R. Boiler Room.



CHARLESTOWN-WINTHROP GRAMMAR SCHOOL-HOUSE, BOSTON.

FIRST STORY.

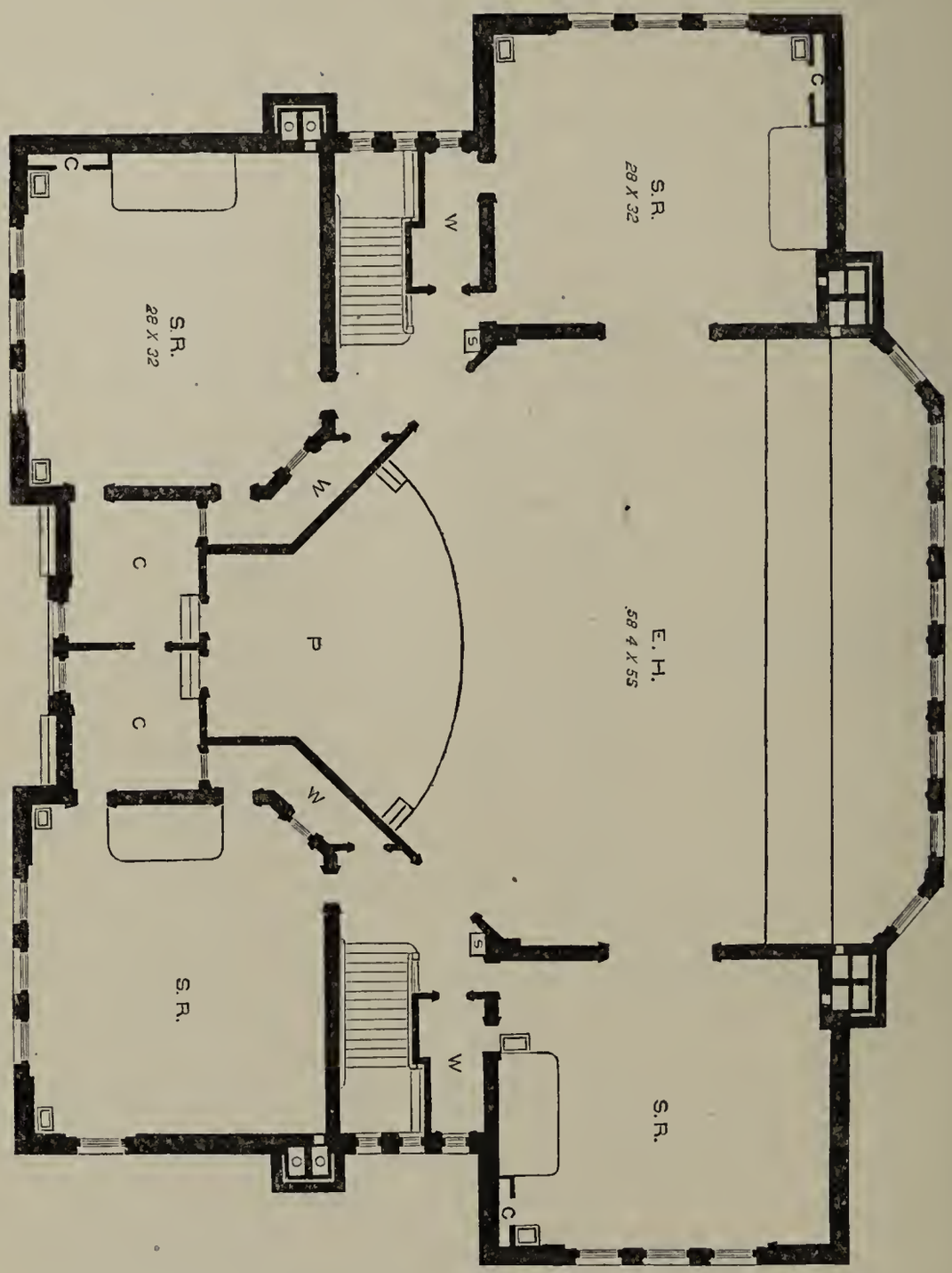
H. Corridor.
S.R. School Room.
W. Wardrobe.
C. Teacher's Closet.
S. Sink.



CHARLESTOWN-WINTHROP GRAMMAR SCHOOL-HOUSE, BOSTON.

SECOND STORY.

H. Corridor.
S.R. School Room.
M.R. Master's Office.
W. Wardrobe.
C. Teachers' Closet.



CHARLESTOWN-WINTHROP GRAMMAR SCHOOL-HOUSE, BOSTON.

THIRD STORY.

E.H. Exhibition Hall.
P. Platform.
C. Anteroom.
W. Wardrobe.

WINTHROP GRAMMAR SCHOOL-HOUSE,*

CHARLESTOWN DISTRICT.

DESCRIPTION.

This new grammar-school building is located at the corner of Prospect and Edgeworth streets, Charlestown District. The lot of land was selected by the authorities of Charlestown, before annexation, and contains about 22,079 feet. After annexation, the matter was referred to the Committee on Public Buildings. Plans were prepared by the City Architect, for a building containing 16 school rooms and an exhibition-hall. It was found that these accommodations could be obtained without decreasing the size of any school-room, staircase, exit or entrance room, by grouping all the rooms around a common hall; the area of the building being only about 9,000 feet, instead of 13,000 feet, covered by many grammar-school buildings, with but 14 rooms. The master has a commodious room; each school-room has connected with it a well-lighted wardrobe of liberal size, as well as a teacher's closet. Particular care has been given to the lighting, heating and ventilating. There are four large windows in each room, placed within 8 inches of the ceiling, and arranged to throw the light to the left of the pupils, upon the German

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* The name of the Charlestown-Winthrop School was changed, June 30, to the Frothingham School.

system. The warming is the indirect steam method, the boilers being located in the basement, in fire-proof room. The system of ventilation is by means of shafts extending from basement to above the highest point of the roof, into which openings are made from the rooms; smoke and steam pipes are introduced into them, creating a constant upward current of vitiated air. The pure air, admitted into hot-air chambers or cells in the basement, is warmed and then sent to the rooms, producing a uniform temperature throughout the building.

The structure is built in the modern Gothic style of brick, trimmed with sandstone, black bricks being introduced for variety, and is three finished stories high above the basement, which is partly finished as play-rooms; this story is entered on a level with the yard or play-grounds, on the south side; and on the north side there is an entrance on Edgeworth street. The principal entrance is at a level with the first floor on Prospect street. The interior finish of the building is of pine throughout, grained in imitation of oak, and varnished, with hard pine for floors and staircases. The contracts for the work were awarded as follows: to Messrs. Donahoe Brothers, the masonry; to Mr. John Rawson, the carpentry, and to the Walworth Manufacturing Co., the heating. The plans and designs were made by the City Architect, George A. Clough, Esq. The cost of the land was $44,258.12; the cost of the building and furniture was $84,195.84; total cost, $128,453.96.

DEDICATION.

The dedicatory exercises took place in the exhibition-hall of the building, on Thursday afternoon, April 6, 1876. The pupils were represented by several of the upper classes; and parents of children belonging to the school were in attendance in large numbers, as well as residents of other sections of the Charlestown District who are interested in educational matters. The platform, which was handsomely decorated with plants and flowers, was occupied by the Mayor; several members of both branches of the City Council; several ex-mayors of Charlestown; a number of present and past members of the School Board, including the Chairman of the Committee of Arrangements, Nahum Chapin, Esq., and the other members of the Division Committee; the Superintendent of Public Buildings and the City Architect; the principal school officers and other prominent citizens.

The exercises opened with the chant, "I will lift up mine eyes unto the hills," sung by the pupils, under the direction of their music-teacher, Mr. J. Munroe Mason; after which prayer was offered by the Rev. W. T. Stowe, of the Universalist Church. The pupils then sung the anthem, "Call upon Me." Alderman John T. Clark, in behalf of the Committee on Public Buildings, with a few appropriate remarks presented the keys of the school-house to His Honor the Mayor, who, on receiving them, spoke as follows: —

ADDRESS BY MAYOR COBB.

Mr. Chairman: — I must be allowed to felicitate myself that my first public official visit to this historic section of our city is occasioned by no exigency of municipal politics, nor by any conflict of opinion or interests among the citizens, but only by the fitness of a formal and official recognition of that civic interest which underlies all other interests, and unites all opinions and hearts in its behalf, — the supreme interest, namely, of the common school and the training of the young in knowledge and virtue.

We come together to dedicate this house to the high uses of popular education. My first thought is that it is a goodly structure, admirably suited to its purpose. It is the first Grammar School House designed by the City Architect, and erected under his supervision; and I consider it very creditable to that officer. Plain and simple in style and finish, it will not incur the charge of showiness and extravagance.

At the same time being well proportioned, chaste and substantial, it satisfies the eye and is an ornament to the neighborhood. It cost far less than any recent building of its class in the city, and is inferior to none of them in the extent of its accommodations, and in all the appliances which are necessary for the health and comfort of its occupants.

The thanks of the city are due to the committee and the Superintendent of Public Buildings, and also to the contractors and mechanics for the faithful, tasteful and economical manner in which the work has been done. Until 1874 all school-houses in Boston had been paid for, or rather not paid for, by loans running from ten to twenty years.

Of the present city debt upwards of $2,500,000 is for school-houses, the interest of which is paid by annual taxation.

There were school-houses in the city, which were long ago discontinued and demolished, on the cost of which we are still paying interest; the principle being payable ten years hence. Two years ago the City Government took a new departure, and intimated the policy of paying as we go. Several costly Primary School-houses have been built on this principle; and now I am proud and happy to state that this house, together with the land it stands on, has

been already paid for to the last dollar out of the regular tax levy. I trust this policy will, under no circumstances, be abandoned hereafter.

This school is fortunate in its name. It is a name suggestive of the noble Christian virtues which characterized the Puritan founders of Boston, — simplicity of manners, purity of morals, integrity of life, — a name which, from those early days to the present, has never been dissociated with honor, rectitude and patriotism, and, I may add, good learning and the best intellectual culture of the time.

In these evil and corrupt days, when so many moral lapses and humiliations are brought to light in high places and in low, it is well that the city's children who will assemble here should find in the name they will have occasion to speak or hear every day an inspiring reminder of a loftier style of character in the older times.

The school is happy also in its location. It stands on the slope of Bunker Hill, — a spot of signal renown in American history. Surely none but high-minded men and women, and pure and ardent lovers of their country must be nurtured and trained in a scene so sacred and inspiring.

Yonder majestic shaft, which throws its shadows over these halls, studied in connection with its antecedents and surroundings, and with what was done on these heights a hundred years ago, and with what has been said and seen on them in this centennial year, and with all the great memories and associations that cluster about it, must be of itself alone a liberal education to an American schoolboy.

But the hour does not belong to me except in these brief formalities; the occasion belongs most fitly to those experts and specialists in the matter of education who will kindly favor us with their remarks.

And now, Mr. Chairman, in placing these keys in your hands, I commit to you, in behalf of the city, the care and direction of the Winthrop School.

Mr. Chapin, Chairman of the Committee of Arrangements, having received the keys, in behalf of

the Division Committee, delivered the following address: —

ADDRESS OF NAHUM CHAPIN, ESQ.

In behalf of the Division Committee, I accept this key, with the trust it implies. The need of more and better accommodation, in this district, has long been felt and acknowledged.

In the year 1872, the City Government of Charlestown, under the statute law, took the lot of land on which the present building is erected. Plans and specifications were made, and proposals received, for the erection of a building of the same capacity, but of a different style of architecture.

We then felt that the day of our deliverance from long inconvenience was not far distant; but we were doomed to disappointment. The great fire of the 9th of November, which laid the business centre of your city in ashes, so alarmed those who had offered proposals, that they asked to be relieved from their obligations, and the city granted their request. Thus disappointed, we remained patient until the union of the two cities.

When we again presented our claim it was unanimously acknowledged, and to-day we fully realize the fruit of our labor in this most magnificent building, which is second to none in our city for architectural beauty and convenience, and which we are here to-day to dedicâte to the noble cause of popular education.

To build such edifices not only gives character, but moral and political strength, to our city. I have no doubt that the expenditure here made will, in due time, exert its full influence in that direction as those who faithfully avail themselves of all the privileges we offer them shall go out to mingle with the busy world. Many of them, we trust, will become bright ornaments in the various walks of life, reflecting credit upon our educational institutions. If such is not the result, we can most certainly say it is not the fault of our city, which has so liberally contributed for the education of her children, and for which she has, heretofore, had no cause to regret the expenditure thus made; for she has received an ample reward in the character of those who have improved the opportunities they have afforded.

For this evidence of interest in the Charlestown District, made manifest in this substantial and commodious building, I desire, in behalf of the Division Committee, the parents, pupils, and teachers of the Winthrop District, to express to you, and all those officially associated with you from its commencement, our most sincere thanks.

TO THE MASTER.

At the request of the Division Committee, I now place in your hands this key, that the doors of this grand edifice of learning may be opened to all those who desire to avail themselves of the privileges so generously provided. It is upon you that much of the responsibility rests; it is to you that the anxious parents look for the educational advancement of their children, of the great importance of which they are fully aware, and for which they are willing to contribute freely, that the best results may be realized. But with your many years of faithful service we have perfect confidence that those who come under your charge will have no reason to complain, but will look back to the days spent within these walls as the best improved and happiest of their lives. They will cherish feelings of gratitude, not only to the teachers of the Charlestown-Winthrop School, but also to the city of Boston, to whom they are so much indebted for her unfaltering interest in their future welfare.

May God bless and prosper you and your associates, in the continuance of your labors.

REMARKS OF MR. CALEB MURDOCK.

In receiving the keys of the building, Mr. Murdock, the master, said that it was a pleasant duty to assume, in behalf of himself and his associates, the charge of such a convenient and beautiful schoolhouse, furnished with all the improved appliances. With the new building, so different from the old one, came new responsibilities, and he trusted that the results of the change would be commensurate with the increased accommodations.

The dedicatory hymn, written for the occasion by Prof. B. F. Tweed, was then sung.

DEDICATION HYMN.

Not ours to breast the ocean storm,
  To tempt an unknown shore,
Or stand in freedom's foremost rank,
  Mid battle's deafening roar.

These for our fathers' stouter hearts,
  Whose faith's prophetic ken
Saw, through the strife and clouds of war,
  Peace, and good-will to men.

What Pisgah views their vision met,
  And fired their glowing zeal,
None less than prophets may divine,
  None less than heroes feel.

Instinct with life the very soil
  By hero footsteps trod;
Hallowed and consecrate the ground
  Sprinkled with patriots' blood.

Then, 'neath the shade of Freedom's fane,
  On Bunker's sacred height,
Catching the dayspring from afar,
  Piercing the depths of night, —

Let us our humbler temple rear,
  To learning dedicate; —
Teaching the young to lisp their names,
  Their virtues emulate;

Firing young hearts to noble aims
  For freedom, truth, and right;
Nerving young hands to noble deeds,
  Trusting in God's own might.

REMARKS OF THE SUPERINTENDENT.

Mr. Philbrick, the Superintendent of Schools, having been called up, spoke at considerable length on several topics suggested by the occasion, but he preferred not to furnish a copy of his remarks for insertion here. He agreed with Mr. Chapin in the opinion that this was the best Grammar School-house which had been erected in Boston. He also cordially concurred with His Honor the Mayor in com-

mending the City Architect, who designed the building. While the history of school-house building in this city during the past thirty years showed marked and gratifying progress, it showed also not a few errors or mistakes, which should have been avoided. He believed that the creation of the office of City Architect would afford the best security against the repetition of such errors or mistakes in the future. Besides this Grammar School-house several Primary School-houses have been built after designs and plans by our City Architect, which are decidedly superior to the school-houses of that class which had been previously erected, although their cost was even less. The elements which we should seek to combine in our school-buildings of all grades as far as practicable are these: economy of expense, architectural comeliness, perfect safety, reasonable sanitary requirements, and the requisite facilities for instruction and management.

As on such an occasion as this it is not inappropriate to remember our blessings, he would take occasion to say what would perhaps be a little surprising to those who get their impressions of our school system from anonymous criticisms in the newspapers, namely, that in consequence of the traditionary liberality of the City Council, acting in harmony with the public sentiment of the community in the matter of building school-houses, our schools are on the whole better provided with accommodations than the schools of any other large city either in our own country or on the other side of the water.

And in view of this statement, taken in connection with the fact that this is the best of all our school-houses, certainly this school, and all immediately interested in it, teachers, pupils and their parents, and even the real-estate owners in its neighborhood, are to be congratulated on this occasion. But the school edifice is not an end, it is only a means to an end. In school matters there seems to be a tendency to forget the *end*, and dwell too much on the *means*. It is for the teachers and pupils so to fulfil their duties that when one who understands education enters here, he will find all things harmonious, and in keeping, and will say, "How cheerful and commodious and symmetrical is this building, but the scholars who occupy these rooms are no less admirable in character and knowledge. The house and its occupants are worthy of each other.

REMARKS BY HON. RICHARD FROTHINGHAM.

The Hon. Richard Frothingham was then called upon, and in response said: —

First, let me thank you for the great privilege of saying a few words on this most interesting occasion. Indeed, this is a school-house to be proud of. It stands an ornament among us, and indicates the liberality and justice which the city is disposed to do to the Charlestown District; and in the name of the citizens here, Mr. Mayor and gentlemen, I cannot but express their thanks to you for putting here so noble a temple in which to educate and cheer the rising generation. Let me refer to an idea that was here 240 years ago, when a school-house was placed on the "Old Windmill Hill," on what is now called Harvard Hill. Then the social condition was called the family; a number of families made the house; a number of houses, the tribe; and a number of tribes, the Commonwealth; and that idea had its run. Then there was another idea, that the State was the political unit, to which the individual must be sacrificed. And so of old, glorious Greece. In triumphant Rome the State was everything, and the individual was nothing. The great political writers tell us that the individual, during the time of the Roman Popery, was but a thing, not a man. Another idea was that the social unit is the individual, and that is the basis of our common-school system; and it is the duty of those who are living to educate this individual up to perform all the duties of life. May it stand, and no attempt be made to interfere with it; may the children of all, without regard to race or sex, come here and learn the first duties of an American citizen. It is for you, gentlemen, who control our system of education, to see that equal and exact justice shall be done to all who come here; that nobody shall be wronged in his faith or opinion. Long may this noble temple stand, and may it contribute to promote the interests and glory of our country, so that those who come after us shall stand its defenders, and emulate the bravery and virtues of the men who fought at Bunker Hill. [Applause.]

Prof. B. F. Tweed, one of the recently elected Supervisors, and formerly Superintendent of the

Charlestown schools, being called upon, responded as follows: —

Mr. Chairman, — The citizens of Charlestown, those who may be supposed to have some ambition to perpetuate their names, must be regarded, in one respect, at least, as unfortunate. The District is so rich in historical associations, that no sooner does a beneficent institution spring up among us, than an honored name, dating back, perhaps, to the early settlement, stands ready and waiting to appropriate it. Indeed our territory has heretofore been so limited, and the roll of honor so long, that we have not yet got beyond the Revolution. The names of Winthrop, Harvard, Warren and Prescott, all strike their roots deep into the rich alluvium of our local history.

I say, sir, in one respect, this is unfortunate. Were it otherwise, we might have expected, ere this, to have had a Frothingham school, an Adams school, a Thompson school, and, perhaps, others. They would certainly be recognized as appropriate names, though, in some instances, there might be a doubt whether given in recognition of the valuable services of a former, or of the present generation. The question, I am aware, has been asked, "What's in a name?" Sir, a great deal; and if I had the eloquence of an Everett, I think I could answer it as satisfactorily as he answered the question, "What good will the Bunker Hill monument do?" There is an inspiration in the names of the great and good into whose labors we have entered. A virtue goes out from every true man, which becomes inextricably interwoven with his name, and is thus perpetuated.

The historian Bancroft, in speaking of Winthrop, in whose honor this school was named, says, "God so exercised his grace in him that he saw his image and resemblance in every one, and cared for others as for himself." What a lesson this for all of us, and especially for the teachers of this school! Do they, in every child committed to their care, see an image and resemblance of themselves? If so, we have the best possible assurance that they will care for them as for their own children, — as for themselves.

I hope, sir, that this quotation may be framed and hung up in this hall, as a perpetual reminder, both to teachers and pupils, of

him whose honored name the school bears, and an incentive to emulate his virtues.

In closing, allow me to congratulate the teachers and pupils upon their removal from their old quarters to this pleasant location, and beautiful and commodious building. Nor can I forget, in my congratulations, the Chairman of the Committee, who to-day witnesses the accomplishment of an object for which he has so long and so earnestly labored. I don't know that I am quite ready to recommend changing the name from the Winthrop to the Chapin School, but I am certain that the location and the building will be intimately associated with that name, in the minds of the teachers, pupils, and parents in the Winthrop District.

Remarks were also made by ex-Alderman C. J. Prescott, Supervisor George M. Folsom, Messrs. J. E. Fitzgerald and W. T. Adams, members, and Hon. Wm. H. Leonard, Jr., Vice-President of the School Board. The exercises were concluded by the singing of the Doxology, "Praise God from whom all blessings flow."

LIST OF SCHOOL-HOUSES.

LIST OF SCHOOL-HOUSES.

Name.	*Location.*	*No. feet in lot.*	*When built.*	*No. of rooms.*	*Remarks.*
Adams	Summer street .	14,100	1856	18 and hall.	
Atherton	Columbia street, Ward 24 . . .	25,087	1872	6 "	
Adams street . .	Ward 24	44,555	1861	2	Moved from Codman st., 1872.
Avon place . . .	Highlands . . .	10,057	1851	2	
Andrews	Genesee street .	5,393	1848	3	
Austin	Paris street . . .	5,360	1849	6	
Auburn	School street, Br.	12,340	. . .	2	Old engine house on this lot.
Appleton	Appleton street .	18,454	1870	10	
Baker street . . .	W. R.	10,464	. . .	1	
Boylston	Washington st. .	15,073	1845	13 "	Ward Room No. 16 in this building, and an evening school.
Bowdoin	Myrtle street . .	4,892	1848	12	
Bowditch	South street . .	12,006	1862	14 "	Branch of the High School and evening and drawing school in this building.
Bennett	Winship pl., Br.	24,259	. . .	3	
Bigelow	Fourth street . .	12,660	1850	14 "	
Bunker-hill street	Charlestown . .	2,957	. . .	2	Hose House No. 4 on this lot.
Brimmer	Common street .	11,097	1843	14 "	
Bunker Hill Gr. .	Baldwin st., Ch.	19,660	. . .	14 "	Primary school-house on this lot.
" " Pr. .	Bunker-hill st.				
Baldwin	Grant place . .	6,139	1864	6 "	
Chapman	Eutaw street . .	13,040	1850	10 "	
Central	Brewer st., W. R.	33,518	. . .	6	
Comins	Tremont street .	28,780	1856	13 "	Remodelled, 1869.
Canterbury street	W. R.	20,121	. . .	2	
Comins Branch .	Smith street . .	6,952	1849	2	
" " .	Francis street .	12,074	1853	6	Rebuilt, 1861. Addition built, 1875.
Child street . . .	W. R.	43,024	. . .	2	
Cheever	Thacher street .	2,003	1846	3	
Cottage place . .	Highlands . . .	13,500	1859	4	

School-Houses. —*Continued.*

Name.	*Location.*	*No. feet in lot.*	*When built.*	*No. of rooms.*	*Remarks.*
Channing	Cove street . . .	7,140	1866	9	
Cook	Groton street . .	4,922	1852	6	
Chauney place .	Charlestown . .	7,410	. . .	1 each.	Two buildings and City stable on this lot.
Cross street . . .	Charlestown . .	1,708	. . .	2	
Common street .	Charlestown . .	6,980	. . .	6	
Cushman	Parmenter street	. . . .	1867	16	
Curtis street . . .	W. R.	13,733	. . .	2	
Clinch	F street	13,492	1871	6	
Capen	Sixth street . . .	12,354	1871	6	
Dwight	Springfield st. .	19,125	1857	14 and hall.	
Dudley	Bartlett street .	7,950	1846	6	Rebuilt, 1865.
Deaf-Mutes . . .	Warrenton street	3,078	1854	6	
Dearborn	Dearborn court .	38,636	1852	14 "	Rebuilt, 1870.
Dorchester-Ev'tt.	Sumner street .	6,097	1876	10 "	
Dwight Pr. . . .	Rutland street .	7,850	1851	6	
Dean	Wall street . . .	3,649	1853		
Drake	C street	10,260	1869	6	
Eliot	N. Bennet street	11,077	1838	14 "	Rebuilt, 1860.
Everett	Sumner street, Ward 24 . . .	29,300	1855	7	
Everett	Camden street .	32,409	1860	14 "	
Everett	Pearl street, Br.	44,237	. . .	2	
East-st. place . .	East-street place	2,706	1849	4	
Emerson	Poplar street . .	5,924	1861	6	
Eustis street . .	Boston Highlands	13,534	1848	4	Enlarged, 1858.
Florence	Florence st., W.R	25,030	. . .	4	
Franklin	Ringgold street .	16,439	1859	14 "	
Fifth st.	S. Boston	12,494	1874	8	
Freeman	Charter street . .	5,247	1868	6	
Franklin place .	Highlands . . .	8,098	1865	4	
Gibson	School st., Ward 24	44,800	1857	6	
Gaston	L st., So. Boston	18,450	1872	14 "	
Guild	East street . . .	7,250	1866	12	
George street . .	Highlands . . .	35,353	1861	6	

School-Houses. — *Continued.*

Name.	*Location.*	*No. feet in lot.*	*When built.*	*No. of Rooms.*	*Remarks.*
Green street . . .	W. R.	11,627	. .	2	
Grant	Phillips street .	3,744	1852	4	
Haverhill street .	Ch.	5,399	. .	1	
Harvard	Bow street, Ch. .	16,306	. .	10 and hall.	
High and Latin .	Bedford street .	12,980	1844	16 "	Additional story added, 1863.
High	Monument sq., Ch.	10,247	. .	10 "	
Harvard street .	Harvard st., Ch.	4,645	. .	8	
Hancock	Richmond street	28,197	1847	14 "	
Hillside	Elm street, W. R.	18,613	. .	6	
High	Kenilworth st. .	6,667	1861	8	Boston Highlands.
High	Elm street, W. R.	32,262	. .	5	
High	Dorchester ave., Ward 24 . . .	59,340	1870	6 "	
High	Chestnut Hill ave. Br.	54,448	. .	5 "	
Harris	Adams st., Ward 24	37,150	1861	8 "	
Howard avenue .	Mt. Pleasant . .	2,138	1876	2	
Harvard	N. Harvard st., Br.	20,750	. .	5	
Hawes	Broadway . . .	14,972	1823	8	
Heath street . . .	Highlands . . .	10,555	1857	2	
Ingraham	Sheafe street . .	2,198	1848	3	
Lawrence	B and Third sts.	14,343	1856	14 "	
Latin Branch . .	Mason street . .	6,386	. .	7 "	Ward Room 10 in this building.
Lexington street .	E. B.	9,000	. .	8	
Lincoln	Broadway . . .	17,560	1859	14 "	
Lyman	Paris street . . .	26,200	1870	14 "	Rebuilt, 1872.
Lewis	Sherman street .	27,850	1868	12 "	
Lowell	Centre street . .	35,241	. .	14 "	
Mayhew	Hawkins	9,625	1847	10 "	
Mather	Meeting House Hill	6,059	1872	10 "	
Minot	Walnut st, Ward 24	22,790	1856	7	Addition of 6,000 ft. made July 1st, 1873.
Moulton street . .	Ch.	8,130	. .	4	
Munroe street . .	Highlands . . .	11,910	1854	2	Rebuilt, 1857.
Milldam	" . . .	. . .	1849	2	On land not owned by the city.

School-Houses. — *Continued.*

Name.	*Location.*	*No. feet in lot.*	*When built.*	*No. of rooms.*	*Remarks.*
Mather	Broadway . . .	10,160	1842	10	
Medford street .	Ch.	16,780	. .	1 each.	City Stables on this lot.
Medford street .					
Mead street . . .	Ch.	6,268	. .	4	
Mt. Pleasant ave.	Highlands . . .	9,510	1847	2	
Mt. Vernon . . .	Mt. Vernon st., Ward 23, W.R.	22,744	. .	4 and hall.	
Normal	Newton street .	30,520	1870	66 and halls	The number of rooms include those for recitations and containing apparatus.
New Winthrop .	Prospect street, Ch.	22,079	1874	16 "	
New Bennet . . .	Chestnut-Hill av., Br.	26,648	. .	7 and hall.	
New Florence . .	Roslindale, W.R.	5,961	1876	10 "	
Newbury street .	Newbury street	22,960	1874	8 "	
New Dudley . .	Dudley street . .	26,339	1874	14 "	
Norcross	D street	12,075	1868	12 "	
N. Margin street	N. Margin street	1,661	1837	2	
Old Lyman . . .	Meridian street .	13,616	1846	. . . . .	Br'ch Library and Ward-room 2 in this building.
Old High	Dorchester ave., Ward 24.	34,460	. .	4	Unoccupied.
Oak square . . .	Br.	9,796	. .	2	
Old Mather . . .	Meeting House Hill	. . .	1856	7	
Polk street . . .	Ch.	9,600	. .	2	
Phillips	Anderson street	11,190	1862	14 "	
Princeton street .	E. B.	17,400	. .	8	
Prescott	Prescott street .	39,952	1865	16 "	
"	Elm st., Ch. . . .	14,232	. .	14 "	
Pierpont	Hudson street .	4,216	1850	4	
Phillips street . .	Highlands . . .	20,595	1867	8	
Pormort	Snelling place .	4,373	1855	6	
Poplar street . .	W. R.	7,842	. .	1	
Parkman	Silver street . .	5,306	1848	6	
Quincy street . .	Highlands . . .	23,453	1874	8	
Quincy	Tyler street . . .	12,805	1847	14 "	Burnt, 1859. Rebuilt, 1860. Bell-tower built, 1872.

School-Houses. —*Continued.*

Name.	*Location.*	*No. feet in lot.*	*When built.*	*No. of rooms.*	*Remarks.*
Rice	Dartmouth street	27,125	1869	14 and hall.	Damaged by fire Dec. 20, 1875.
Roxbury street .	Highlands . . .	14,147	1874	10	
Rice, Pr.	Concord street .	10,756	1845	10	Ward-room, Ward 18, in this building.
Shawmut av. near Glen Road . .	W. R.	12,303	. .	2	
Shurtleff	Dorchester st. .	40,610	1869	14 "	
Shawmut av. near Forest Hill sta..	W. R.	27,450	. .	2	
Sherwin	Madison square .	32,040	1870	16 "	Dedicated Feb. 23, 1871.
Stoughton . . .	River st., Wd. 24	29,725	1856	8	
Shawmut ave. . .	Germantown . .	13,140	. .	2	
Smith	Joy street . . .	1,938	1834	2	
Simonds	Broadway . . .	. . . .	1840	3	On Hawes School-house lot.
Shurtleff, Pr. . .	Tyler street . .	3,900	1855	6	
Sharp	Anderson street.	5,611	. .	6	Ward-room, Ward 9, in this building.
Somerset street .	. . . . .	5,488	. .	8	Formerly the Normal Training School.
Savage	Harrison ave. . .	5,537	1862	4	
Starr King . . .	Tennyson street.	11,687	1870	10 "	
Skinner	Fayette street . .	5,238	1870	6	
Tileston	Norfolk street, Ward 24 . . .	83,640	1868	8 "	
Thetford avenue .	Ward 24	29,879	1875	6 "	
Ticknor	Washington Vil.	11,486	1865	12	Clock-tower, built 1873.
Tuckerman . . .	City Point . . .	11,655	1850	6	Enlarged in 1861.
Thomas street . .	W. R.	10,754	. .	3	
Thornton street .	Highlands . . .	6,640	1847	2	
Union street . . .	Br.	67,280	. .	2	
Vernon street . .	Highlands . . .	7,675	1849	4	Enlarged in 1861.
Winthrop	Tremont street .	15,078	1855	14 "	
"	Bunker Hill st., Charlestown .	7,927	. .	12	
Wells	Blossom street .	10,770	1868	10 "	Ward-room, Ward 8, in this building.
Warren	Summer street, Charlestown .	14,322	. .	14 "	
Webb	Porter street . .	7,492	1853	6	
Webster	Webster street .	5,036	1852	6	

School-Houses. —*Concluded.*

Name.	*Location.*	*No. feet in lot.*	*When built.*	*No. of rooms.*	*Remarks.*
Webster	Webster ave., Br.	19,761	. .	2	
Ware	N. Bennet street.	6,439	1862	4	Ward-room, Ward 6, in this building.
Wait	Shawmut ave. .	10,974	1860	8	
Winthrop street .	Highlands . . .	9,775	1857	4	
Winchell	Blossom street .	5,000	1845	5	Remodelled, 1870.
Way street . . .	Way street . . .	2,508	1850	3	
Weston street . .	Highlands . . .	14,916	1854	4	
Yeoman street .	" . . .	18,200	1870	12	

In addition to the foregoing, the following rooms are occupied by schools, being hired at an annual rental of $10,176.00.

Number of Rooms.	*Location.*
Two	Day's Chapel, Parker street.
Two	Church on D street.
One	Sterling street.
Two	Cor. Shawmut ave. and Codman Park.
Two	Everett avenue, Ward 16.
Three	Boston street, Ward 16.
Two	Unitarian Church, Neponset, for Evening School.
Six	Gogin's Building, Dorchester street.
Two	Bank Building, cor. of E street and Broadway.
Three	Oakman's Building, Walnut street, D. D.
One	Seaverns' Hall, West Roxbury.
One	Market street, Brighton.
One	Union square, Brighton.
One	Washington Village, M. Episcopal Church.
One	Dudley Hall, Green street, West Roxbury.

Boylston Hall, over Boylston Market, is hired for a drill-room for the scholars belonging to the Latin and English High Schools.

Bacon's Hall, Highlands, is hired for a drill-room for the scholars belonging to the Roxbury High School.

Amory Hall, Charlestown, is hired for a drill-room for the scholars belonging to the Charlestown High School.

SANITARY REQUIREMENTS

IN

SCHOOL ARCHITECTURE.

[*From Superintendent's Report, p.* 120.]

"I regard this proper (Sanitary Requirements in School Architecture, by Dr. Sinclair), of so much practical importance, as a summary of the best opinions relating to the sanitary requirements in school-houses, that I deem it my duty to recommend to the Board that it be printed with the forthcoming Annual Report of the Board."

[*From Proceedings of School Committee, Jan.* 23, 1877.]

"On motion of Mr. Perkins, it was

"*Voted*, That the paper on the Sanitary Requirements in School Architecture, prepared by Dr. D. F. Lincoln, for the Social Science Association, be included in the forthcoming volume of the Annual Report."

SANITARY REQUIREMENTS

IN

SCHOOL ARCHITECTURE.

BY D. F. LINCOLN, M.D., BOSTON.

SECRETARY OF THE HEALTH DEPARTMENT OF THE AMERICAN SOCIAL SCIENCE ASSOCIATION.

The most instructive works upon this subject must be sought in the German language. Varrentrapp, in 1868, gave sixty-two references to books and monographs, mostly in German. There are constant improvements made by the English in all sanitary matters, and we have some things already to learn from them in school hygiene, though their system of common schools has been in existence but a few years; but there are peculiarities in their methods of instruction which make their plans unavailable for our use. The Germans, on the other hand, allot one room to each class and teacher, so that their school-houses might be directly transferred to American uses. It is needless to say, however, that even their plans are open to criticism.

In America, at all events, the most complicated and costly structures often turn out failures in a sanitary sense. Of those built as long ago as five years, it would be hard to name one that is quite satisfactory.

As the Germans have been the deepest students of

this subject, it is well to mention here certain points in which their schools differ from ours. Of the value of those points the reader may judge: —

1. In Germany the janitor lives in the school-house, unless it be quite small.

2. The head-master and his family also live in the school-house.

In this there is nothing inconsistent with German habits, though to an American, at the head of a first-rate Grammar School in a large city, it would seem queer to have to occupy a suite composed of "two chambers, a cabinet, ante-chamber or entry, and kitchen," in the third story of a school-house, as is the law in Vienna.

3. The boys and girls are kept most strictly separate.

4. Much more stress is laid upon precautions against damp, cold, wind, sun and draught, than is usual in America. The same is the case in English architecture.

5. The Germans, though niggards in respect to the size of school-rooms, are suprisingly liberal of corridor space, and of rooms for consultation, drawing-rooms, libraries, cabinets and laboratories. A hall for assembling the whole school is considered indispensable in all higher schools.

6. Gymnastics being universally taught, it is usual in boys' higher schools to have a room set apart for the purpose, sometimes in the house, but usually in a separate structure in the yard.

A "summer gymnasium" is often fitted up in the garden for open-air use. This practice is strongly

to be commended. The necessity, in cities, of enforcing some athletic discipline of the body is now obvious to careful observers, and needs no argument here. Some of our schools have a large play-ground, where the boys may run and shout as much as they like; but in cities there is little chance for the generous development of this part of a boy's nature, unless it be done systematically and enforcedly.

Calisthenics are good for little boys, but older boys get to regard it as childish and monotonous; and however excellent military drill may be, it is not a fit means for ensuring the symmetrical and handsome development of a weakly boy; it interests and it is popular, but it is understood by military men to lack many points, when considered as an element in the education of the body; and girls, who most need gymnastics, are excluded from military exercises.

7. Finally, the custom prevails in country schools of setting apart a lot of ground for the teacher's garden, and another piece for teaching the scholars botany, horticulture and the culture of trees. In Silesia, where the system is best carried out, not only is this done, but the care of bees and silk-worms is taught.

We will now proceed to take up in order the points that should be attended to by our own builders.

In choosing a site for building, dampness of the soil must by all means be avoided. For this reason high land, particularly if the soil be composed of sand, gravel, or other pervious material, has an advantage. It may be that digging will reveal hidden springs in the foundations or cellar; in this case

the site is inadmissible, unless the water can be diverted; a concrete floor will not keep out water from a cellar built in a saturated soil. Underdraining, to the depth of the cellar floor, will relieve cellars of the water which seeks to enter from the sides in wet seasons; but if this is apprehended, an area had better be excavated outside to the depth of the cellar. The bottom of the cellar ought to be at least three feet above the average level of the water in the soil. To give further protection against the influx of surface water, the yard should be paved, particularly the portion nearest the school-house, and well drained. The neighborhood of ponds or swamps is believed by many authorities to have an influence in producing consumption. Too many trees near the house may be unwholesome in some situations; besides which, they darken the rooms, and make the light flicker.

The neighborhood of noisy or offensive establishments, as foundries, railway stations, markets, shambles, stables, and nuisances generally must be avoided.

The space devoted to a school should be twice as large as the house, including all contemplated future enlargements, will actually cover. Even this amount of spare land is hardly enough for a play-ground, but it will at least suffice to meet the urgent demand for free space about a school-house. A belt of thirty feet, on all sides that are liable to be overshadowed, is the least that should be given, in order to secure proper lighting and a free play of air. It would be well if the law forbade the erection of walls near a

school-house to a height greater than the distance between them and the school. As regards the amount of play-ground required, the Germans have estimated it as at least three meters for each child, which would give nearly 20,000 feet for a school of 600 pupils.*

Great diversity of opinion exists as to the proper way for the house to face. Some object to the north, because no sunlight enters; some think the north most desirable for all occupations requiring pure and strong light, as the use of the microscopes. The east is bad, if exposed to storms; the west may be equally bad in some places.

The entrance of the *direct* rays of the sun cannot be necessary, even if desirable, to ensure a good light for study; but the atmosphere of a room never reached by these rays is not apt to be wholesome. To avoid, therefore, the two extremes, of excessive light and heat on the one hand, and of sunless exposure on the other, Olmsted's suggestions may be followed, and the house made to point with its four corners — not its sides — to the cardinal points of the compass. This position ensures its receiving the sun's rays in every window at some time of the day.

The cellar story, or that which is partly under ground, is limited in its uses. No school-room, meaning a room for regular study at the desk, is allowable in any story of which any portion is under

*Adolf Gerstenberg ("Die Städtischen Schulbauten Berlins, 1871) gives plans of ten of the newer schools of Berlin, from a rough measurement of which it appears that the average surface of the yards attached to these schools equals 3.4 the space covered by the school-houses. The schools are of various grades.

ground; on the contrary, the ground-floor or floor above the cellar should in many localities be raised four feet above the level of the street in order to insure perfect protection against dampness. And even the cellar ought to have a double floor with air space, if the soil is not quite dry.

Play-rooms, for use in rainy days, are very properly placed in a dry cellar. Even a gymnasium may be located there, if the ceiling is high. But these ought to be placed at the side of the cellar, where the slope of the land leaves the wall entirely above ground, and their ventilation and heating must be provided for with the same care that is given to rooms upstairs. They must be floored with wood, or, still better, paved with stone slabs or hard face-brick, with the seams filled in; ordinary brick wears into an annoying dust under the children's feet.

A few water-closets, say two or three, should be placed in the cellar, and as many on each story. One is to be appropriated to the master; one on each floor is for lady teachers; one at least on each floor for the girls, if there are any. Basins for washing the hands, and faucets for drinking, are to be placed on each floor. Water-closets must be separately ventilated, and ought to have a window opening directly upon the outer air; it is well to provide also that they have double doors, with an escape for the air between. The architect should place them as remote as possible from occupied rooms or stairs. With all these sanitary conveniences it must be remembered that a constant danger is connected. A bad arrangement of the traps, the use of perishable lead pipes instead of iron,

the improper location of drains, or an improper slope or angle, or any one of a score of faults, may give rise to a deadly nuisance, imperilling hundreds of lives. It is not the place here to enter into a description of these faults.

The accommodations for the mass of scholars are often placed in the yard; in this case there is exposure and hardship to the children, and there ought to be, at least for girls, a covered passage to the place. Of late some excellent architects have preferred to place them in the basement, and there is some reason to hope for good results from this plan. They ought not to be put there unless the most thorough provision can be made for their ventilation, for they are very liable to become nuisances unless the best of care is taken. Urinals ought to be of slate, and provided with an abundant supply of running water at all times when they are liable to be in use. The safest plan, if privies are placed in the cellar, seems to be to range the seats over a sink or brick trough with a rounded bottom, full of water, and emptied and cleansed at the close of each day. Two such rows of seats may be placed back to back, separated by a double wall; the space in the wall opens downward to the trough or vault, and upwardly it is continued through the house to the roof, the ascent of the air being urged by the introduction of steam coils at proper points. It is best to make all ventilating flues of galvanized iron; I do not feel sure that the plan of a double wall may not allow the passage of gases through plaster or brick into the rooms. A modification of the Jennings water-closet

has been adapted to the use of schools, and is probably desirable. The old-fashioned "pan-closet" is not to be recommended; it is essentially filthy, and in ten years of use this is pretty sure to become manifest by a permanent odor.

The doors of the house ought to open outwards towards the street, to prevent a block in case of a panic, such as an alarm of fire occasions. And with the same view it is necessary to make them abundantly wide; from eight to twelve feet is not more than enough. One such door should be placed close by the foot of each staircase, and, if possible, directly in front; the doorway should in every case be wider than the stairway that leads to it. A liberal provision of scrapers and door-mats must be made, and it should not be beneath the dignity of the sanitarian to see to them, for the wholesomeness of the house depends very much on the cleanliness of the floors and walls. Dust is a thing abhorred of good housekeepers, and positively dangerous to the lungs in many professions. Many schools, even of the best class, are characterized by a most peculiar foul smell, most like that which clings to the bars of gymnastic apparatus, and betraying the fact that the floors and other woodwork are saturated with the more or less volatile products of animal decomposition arising from the perspiration, breath, saliva, and the countless scents brought in the children's clothes from the domestic fireside. To avoid this evil as far as possible, it is recommended to select wood that is little porous. For the floors, hard pine, saturated in hot linseed oil before laying, will give a surface nearly

impenetrable to moisture or vapors, which dries instantly when washed, and is very durable. Many other points of cleanliness are to be mentioned. For instance, the registers for hot air or ventilation must be arranged so as not to become dust-holes, or receptacles for papers, or spittoons, as they are innocently supposed to be by the children; they may be placed at some height, say at least two feet from the floor, and shielded with wire nets. The objection to this position is that the air meets with considerable obstruction in passing a bend in the pipe; there is also some inconvenience in letting the air issue horizontally. There is a plan, successfully adopted in some cases, for bringing all air in at the top of a room, and exhausting foul air from near the floor. But the whole subject of ventilation must be touched very lightly in this essay; it is hoped that it may be thoroughly presented in a year from now.

The entries and corridors must be spacious relatively to the stairs, especially at the foot of the latter. In large houses a width of ten or twelve feet is required. They should be lighted directly from out of doors when possible, and the lights should be placed at opposite ends, so as to ensure a free natural ventilation, which on many days of the year, even in winter, is the best for entries. It is hard to ventilate entries that occupy the centre of schools. Of this the Boston High and Normal School for girls offers an instance. The doors of the rooms stand open in study time, so that the whole house gets an equable foul atmosphere at about 70°–74, and when recess comes the girls stroll about these hot entries, in large groups, unvisited by a breath of fresh air.

The stairways should be fire-proof, by which I mean that they should, if possible, be isolated by solid brick walls on at least three sides. Like the entries, they must be lighted from the outside. There must be at least two staircases for a building of the size contemplated here, and some architects will consider three necessary. The width must be at least six feet in the upper story and eight in the lower, and regard must be had that the height of the steps is not too great for children. Spiral stairs are inadmissible, for the steps are very narrow next the wall, and if the child falls the descent is very steep at that point. Wedge-shaped stairs are inadmissible for the same reason, in turning a corner; they are common in private houses, but dangerous when crowded. Wells are undesirable on this account, although they have a certain advantage in ventilating the entries. If they are used, the staircases are to be sheathed; banisters are totally unnecessary; the rail should be about four feet above the riser. A staircase which ascends the height of a story without a break is not desirable; one or two landings (half-whole landings is the technical term) should be introduced to afford a momentary resting-place.

We now come to consider that part of the house to which everything else is subsidiary, the school-rooms, or rooms where, in our system, most of the studying and recitation of the day is done, each large enough for one teacher and her scholars.

And in the outset let me claim that no school-room, in the sense here used, should be placed so that the scholars shall have to climb two or three flights of

stairs to reach it. Two stories of school-rooms are enough; more cannot be, or are not likely to be, properly ventilated. A third story, if added, may contain a large hall for the daily assembling of the entire school, and sundry other rooms for cabinets, libraries, laboratories, and so forth. I am tempted to add that it is very convenient to have *one* school-room in the third story; but, if this one room be allowed, the School Board must lay it to their conscience that it be not used (as it will naturally be) by the girls of the *oldest class*. It is on behalf of the girls more especially that the claim for diminishing the height of school-houses is here made. The evils which a certain proportion of girls must suffer from having to climb many stairs are familiar to you, at least by name and from hearsay.

And again, if the older girls are put up two or three flights, it is very hard to get them to come downstairs to play at recess time; they ought not to have to go down so far, in fact; but, in the mean time, the room cannot be properly aired out, in the recess, if they remain in it.

No room for study ought to be put in any floor that is at all below the grade of the street. This is needful as a precaution against dampness.

In furnishing directions for planning a model school-house, I would limit the number of pupils to forty in a room. In so doing I trespass, no doubt, upon the ground of professional educators. I do not give it as a fixed opinion, but as a strong impression, that forty is a large enough number for one teacher to attend to; and, if my view is not sustained, there is no difficulty

in adapting the size of the rooms to fifty pupils. More than fifty must be considered as very undesirable.

The number of scholars fixes the size of the room. A certain cubic space is required for each pupil, in the interest of good ventilation. It is quite possible to have a crowded room well ventilated, if all the occupants are indifferent to draughts of air; but in planning a school-room we must avoid crowding, for the simple reason that a sufficient amount of air cannot be brought into a crowded room without endangering health in a worse way than close air endangers it. It is found by experience that when the room contains 250 cubic feet per scholar it is spacious enough to allow of the rapid diffusion of air without the production of perceptible currents. This may be stated in a form easier for use, viz.: The floor ought to contain twenty square feet for each scholar, and the ceiling ought to be twelve and a half or thirteen feet high. Probably this is more than is absolutely required by the youngest children.

I am perfectly aware that this space is larger than is sometimes required. Among those who have written upon the subject I may mention A. C. Martin, who fixes the minimum space at 220 cubic feet. Prof. Kedzie, of Michigan, says 300 is the minimum for even small scholars.

The recent Sanitary Committee of the Philadelphia School Board claim 200 or 300, while the Committee of the New York Medico-Legal Society mention 150 as a minimum. In Germany, according to Varrentrapp, the legal minimum in different States ranges from 284 feet to 120 feet. Varrentrapp himself re-

quires for young scholars 145, and for older ones 195, which is probably rather below the mark. The city of Vienna and Lower Austria requires from 150 to 180 feet. Ficker, in reporting officially upon the Exposition at Vienna, mentions data from which I infer that he requires considerably less space. But all these German figures are vitiated, even as the air of their schools and lecture-rooms is vitiated, by the national insensibility to foul and close air in rooms, and their urgent need of economy in all expenditures. In America recent examinations of schools in several large cities have revealed a state of crowding positively shocking to contemplate, and wholly inexcusable, going in repeated instances to the point of allowing less than 50, and, in one, only from 33 to 41 cubic feet per scholar. How little the requirements of health are yet understood is shown by the provisions of a by-law adopted in May of the present year (1876) by the Board of Education of the city of New York, which makes the minimum of cubic space required in the lowest schools 70 feet, and in the higher grades of grammar schools 100 feet. Even this is an improvement upon the condition of things previously existing.

I have remarked that small children probably require less cubic space than older ones. Or, in other words, that a room in which forty boys of fourteen or fifteen years of age can be supplied with abundance of fresh air without draughts, is large enough for fifty or more of the age of seven or eight years. I cannot speak positively as to the amount of air breathed by these two classes. A boy at fourteen will eat at least

as much as his father does, though he weighs one-fifth or one-fourth less; his respiration is more rapid, and all the organic processes, of which respiration discharges its due proportion, are more active. Hence I do not believe we are justified in supposing that he needs less fresh air than an adult; he probably needs more. But a child of seven or eight years, though also very active, certainly does not consume so much food; and it is allowable to suppose that the products of disintegration discharged by the lungs are correspondingly less. Pettenkofer states, on the contrary, that a boy weighing fifty pounds produces as much carbonic acid as an adult weighing one hundred.* But Andral and Gavarret state that at the age of 18–20 more than twice the amount is exhaled that is given out at the age of 8 years (at 8 years, 18.33 grammes in an hour; at 15, 31.9; at 18–20, 41.79).† The latter statement is certainly to be preferred.

A height over fourteen feet is quite unnecessary in a school-room; it contributes nothing to ventilation, though the case is different in a large hall.

The shape is to be governed by two facts. First, the voice is best heard in an oblong room, with the speaker near one end. If the teacher sits at the middle of one of the long sides, she has the scholars less under control; the eye does not reach them so

* Abhandl. d. Naturwissenschaftlichtechnischen Commission bei der Kön. Bay. Akad. d. Wiss. in München, Vol. 2, 1858, p. 106.

† And General Morin, Director of the Conservatory of Arts and Trades at Paris, in a treatise on ventilation, now publishing by the Smithsonian Institute, assumes that adult schools require twice as much fresh air as primary schools.

easily, therefore the plan of the school should place her desk near the end of the room. It may be remarked that the echo of the voice is much lessened by causing the corners of the room, particularly where the cornice is sometimes put, to be rounded off on a curve of four inches radius. Cornices are undesirable, because uncleanly. The second fact determining the shape of a room is that we cannot fully light it if its depth is much more than once and a half its height. A room thirteen and a half feet high may, therefore, be twenty feet across, or, allowing for an aisle at the side of the room, twenty-three or four. With this width, thirty-three feet in length is required to give the 800 feet of floor space asked for. The windows must, of course, be put along the long side of the room. Columns and piers are to be avoided in school-rooms. If made of masonry, they obstruct light; if of iron, they are said to convey sound, by vibration, to the stories above and below.

Each school-room opens from near the teacher's desk directly into an entry.

A clothes-closet is indispensable to hang up the children's outer garments. This opens by one door into the entry, by another into the school-room, if convenient. It must be spacious, well lighted, ventilated and warmed. The teacher ought also to have a private closet.

The walls may be colored a light green or a neutral gray; the ceiling had better be white, as reflecting more and purer light. No paper is admissible; it is commonly a mere refuge of sluttishness. Blackboards ought not to be placed between or next to

windows, for the simple reason that it is hard to read when facing a strong light. There will be three sides of the room, or in any case two, for blackboards, under the proper plan. The sides of the room are wainscoted up to the level of the blackboards; in the entries the wainscoting is carried to four feet and a half, for reasons of cleanliness.

The windows ought to open directly upon the outer air. No room for study is properly lighted otherwise. A transom window is to be placed over each door. To protect from excess of light, inside folding blinds with rolling slats are very satisfactory; they throw the light up or down at option, and they admit fresh air in summer without noise, while curtains are likely to get injured in a high wind.

It is perfectly feasible to get an abundance of light if care be taken. But the requirements made by sanitary science in this respect are very strict; fortunately they can be fulfilled without great expense. An ordinary dwelling room cannot usually be considered adequately lighted for school purposes. For ordinary uses it is sufficient for the occupant to move his work near a window when he has a difficult bit to do; but a scholar must have a perfect light, wherever in the room he sits. The requisites to this end are as follows: —

(*a.*) The sill had better be placed at least four feet above the floor. Light entering at the level of the eyes only dazzles, and is almost useless for illuminating the tops of desks. Make the interior of the room pleasant, and the scholars will not want to look out at the window.

(*b.*) The top of the window must come as near as possible to the ceiling. By using iron girders we can bring it within eight inches of the latter, and this should be required. The reason for this requisition is that the most useful light for a scholar's purpose is that which strikes his desk at something near a right angle. This is furnished, first, by the upper part of the windows, and, second, by the ceiling; hence the propriety of using every means to secure the thorough illumination of the latter, — a point which is neglected in most dwelling-houses, churches, and schools. Evidently the heads of the windows must be square, and not rounded or pointed, as is the case in certain picturesque styles of architecture. Neither is a pier of masonry dividing a window desirable. The roof must not project so as to cut off any appreciable light; nor are verandas at all allowable in the quarter whence light is supplied. There must be no wing or projection, no pier or column, in the way of light. These restrictions set a limit to the indulgence of the architect's taste, but they leave room enough within the limit. If projections are forbidden, flat decoration and ornamental brick-work are admitted; and shafts, wide doors, groups of windows, are features which can be seized upon to give a characteristic style to the building, which need be neither ecclesiastical, Hellenic, nor commercial.

(*c.*) The proper position of the windows is tolerably well settled. No window should be placed in front of the scholar; for the light thus entering is worse than wasted, blinding him at his work, and tending directly to produce near-sight. Windows

on the right are slightly objectionable, as throwing a shadow on the page whenever the hand is used, in ciphering, drawing, writing. Windows at the back throw the pupil's own shadow on his book; but this is not a serious matter except for those who sit next a window, and they have light enough at any rate, while for writing they are extremely well placed, as it is usual to turn partly to the left in this exercise. Windows at the left are entirely free from objection, as far as they can be free. The ideal light should come from over the left shoulder, or the right shoulder if one is sitting up and reading; but if looking over a desk this is rather inconvenient, and the best is then a very high light, from the left and a little in front. In brief, the rule for placing windows is — *never* in front; *always* on the left; at the back also, if you choose, but not at the right if you can help it. Light from the left and the back at once does not harm the eye, and practically is quite admissible; the only person to find fault is the teacher, in whose eyes the light will fall directly. These principles commend themselves to common sense, and are in accordance with the highest medical authority in this country; the German authorities agree substantially with what I have said, though they differ among each other in the degree of emphasis with which they forbid the rear and right-hand windows. English schools are peculiar, and, from the shape of the rooms and the presence of galleries, are often hard to light.

The size of the windows, taken collectively, should equal at least one-sixth of the floor space. Cohn

requires one-fifth, or thirty inches to the foot. Less than this will probably be insufficient in many cases. It is also stated by the highest authorities in school hygiene that three hundred or three hundred and fifty square inches of glass are required for each pupil, and this requirement is nearly coincident with Cohn's in the German school-rooms; in ours it would not be nearly enough.

VENTILATION.

It is not necessary to state the very large amount of air that ought to be introduced every minute for the use of a body of forty scholars. It is, however, pertinent to remark that the ordinary means of ventilating rooms are totally inadequte to this case. A stove will exhaust air enough for only one person, and there is no practicable way of securing our object in this severe climate without special and large provision, both for warming air and for exhausting it through flues by suction. In almost every point the methods commonly used in our best schools are defective. The air entering through the cracks and doors, though large in amount, does not supply the demand; the use of the patent main ventilator does not ensure good air, in my experience, though it does much to mitigate matters. The heated air from registers is usually damaged by contact with cast-iron furnace plates. The stoves used in school-rooms often have the same fault as furnaces, namely, they permit the transfer of the gases of combustion into the room, and, even if made tight, a gust of wind often

sends a puff of poisonous vapor down the chimney and out at the stove door. The ducts or flues for ventilation are usually miserably small and badly placed; their outlet is sometimes in the attic, and, what is an almost universal fault, there is no provision made for an exhaust; no suction is applied to ensure a draught from the rooms. As far as I know, there is no proper method of ventilating school-rooms (when windows are close) except that of large air-flues communicating directly with a straight shaft of brick, in which a fire, or a coil with steam or hot water, is kept to procure a draught. Steam-power may be economically applied with the same object. It is well to have a name for this method; we will therefore speak of it as the method by exhaustion, as distinguished from the method by propulsion. In ventilating by propulsion, air is warmed, mixed with a proportion of cool air, and forced by a steam fan through pipes and conduits into the rooms. It is generally a wasteful and dangerous method, besides often failing in its object. In the case of the Boston City Hospital it has been entirely given up, it being found that much good air leaked out in its transit through thousands of feet of tubes, and much foul air leaked in from neighboring drains in underground regions, which seriously affected the rate of mortality among surgical patients.

It has often been questioned how high in the walls the openings of the air-ducts ought to be placed. Of course they may be put in the floors; but, as before remarked, they are liable in this situation to become waste-baskets for the scholars and dust-holes for the

woman that sweeps. But there are two theories in favor, respectively, of a low and a high situation for the outlets for foul air, which we may notice in this part of our remarks. According to the one, all foul air emanating from the lungs is highly charged with carbonic-acid gas, and therefore, as the gas in question is heavier than air, the foul air forms a layer at the bottom of the room. According to the other, the expired air is heated to ninety-eight degrees Fahrenheit, and therefore must ascend to the ceiling in virtue of its superior levity. Both theories are based on fact, and both are nearly useless, because they neglect a third fact, which is that a very few minutes suffice to distribute or diffuse any gas to all parts of the room in nearly equal proportions, no matter where it has been introduced. The children's breath, therefore, issuing warm from the lungs, ascends to the ceiling, but on its way upwards it distributes its vapors and gases to each successive layer of air it encounters. So that it is well to have the ventilating flue brought right straight down in the wall to the floor, or near it, and one opening made near the latter, and another at the ceiling. A room requires two flues, of a sectional area of two and one-half feet each, for the exhaust method of ventilation. They are placed remote from each other and from the place where heated air enters. A ventilator at the ceiling, directly over a hot-air register, is a fault sometimes observed, absurd as it appears.

In regard to the supply of warm air, be it remarked first that opinions differ widely as to the proper heat

of a school-room. The President of the Massachusetts Board of Health considers 70 degrees as proper. Varrentrap, whose article is of very great value, says that "a thermometer distant ten feet from the stove and five feet above the floor ought not to mark over 15 degrees R." — that is 65¾ degrees F. Ficker states 14 degrees R. (equal 64 degrees F.) as the proper temperature. Morin says, "In well-ventilated places, with a constant change of air, higher temperatures can be easily borne, and even be found pleasant, than those which would be found oppressive where the air is not changed. Nevertheless, the internal temperature should not be kept above the following points: —

Nurseries, asylums and schools	59	degrees.
Workshops, barracks, prisons	59	"
Hospitals	61–64	"
Theatres, assembly-rooms, lecture halls . . .	66–68	"

"The fresh air introduced should generally have about the temperature it is desired to maintain in the room, as soon as this is sufficiently warmed" . . . . unless there are many windows or other sources of waste of heat; most physicians will admit, however, that 66 degrees is warm enough. Many persons of the age of 50 and upwards, consuming little food, taking little exercise, and therefore generating an imperfect supply of bodily warmth, are chilly if the air falls below 70 degrees; some of my acquaintance desire 80 degrees in order to enjoy perfect comfort; and if the head of the school happens (as is so often the case) to belong to one of these classes the scholars will suffer from excess of heat, if the furnaces are powerful, while the influence of a robust and deep-chested

master is as invigorating, during our parched and torrid January weather, as a blast of sea air in August. Such a master will have his windows open, if no other way will serve; and in moderate weather this is certainly better than overheating.

And windows are an essential thing, not only as supplying light, but, in their etymological sense, as wind-doors. School-rooms cannot be expected to be so well ventilated by shafts and ducts as not to require a daily thorough airing out after school. This is an expensive measure, of course; so is all ventilation.

A very great deal of heat is lost, to no good purpose, by the chilling action of windows. Double windows are, therefore, a valuable economical feature, but they ought to open at top and bottom, inside and out. A double window, of which the outer lower sash is raised, and the inner upper sash is slightly lowered, affords a certain amount of pure air, warmed to some extent by its contact with the inner panes.*

I had intended to say little about these matters, but find myself drawn on to speak. In regard to heating, let me quote again from Morin as follows: "Every heating apparatus or system of heating which does not provide in itself for an ample and regular change of air, or which is not connected with suitable arrangements for producing such a change, is injurious to

* A good deal may be done by raising the outer lower sash and lowering the inner upper of double windows, which allows the admission, close to the ceiling, of air which has been somewhat warmed by contact with the inner windows. Another way to assist ventilation consists in placing a strip of board, seven inches wide, under the lower sash; in this case the air enters in a perpendicular direction between the upper and lower sash. The board is as long as the window is wide, and may be hinged to the bottom of the frame so as to fold up inside.

health." This is simply an axiom, but it excludes most stoves and most systems of heating in which coils of pipe stand in the rooms and entries. A stove, of the air-tight sort,* may exhaust about enough air for one person; an open fire-place, enough for a dozen or less. In general, every system which overheats the air is injurious.

In conclusion I have to mention a few rooms, accessory to the main purpose of education (as heretofore understood by Americans), but in reality not only indispensable aids, but necessary *per se.*

First in importance is the room for gymnastic exercise, which must be, in a large school, at least, twice the size of a school-room. Three times the size is not extravagant. The Germans usually locate it in a separate edifice, in the yard; it ought, according to high authority, to be at least twice as long as broad, — twenty-five or thirty meters long and ten wide, and seven or eight high, which gives a floor space fully equal to three of our school-rooms. As to height, the ordinary room of fourteen feet will do for our purpose. Abundance of light and air and warmth must be provided.

A large hall for assembly is thought an essential feature in American schools. Let me remark upon an expedient intended to supply its place, consisting in the use of sliding glass partitions between adjoining school-rooms. By the use of these several rooms may be at once thrown into one; but, whatever may be

* Probably burning five pounds of coal per hour, or requiring 1,000 cubic feet of air.

their value, they are liable to be so used that the scholar finds the light shining in his eyes.

Other desirable rooms are, one for the master to receive visitors, one for teachers to meet each other, and, in case the school requires it, a cabinet, library and room to store apparatus.

Imperfect as these statements must be, they are presented in the hope of awakening discussion. The author will be greatly obliged to any one who will correct errors, or suggest points that may have been overlooked.

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OF THE

SCHOOL COMMITTEE AND SCHOOLS,

FOR 1877.

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FOR 1877.

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James Morse,
Charles Hutchins,
George H. Plummer,
Lucia M. Peabody,
Nahum Chapin,
William T. Adams.

[Term expires January, 1879.]

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George A. Thayer,
Charles C. Perkins,
John G. Blake,
John B. Moran,
Godfrey Morse,
Abby W. May,
John J. Hayes.

[Term expires January, 1880.]

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F. Lyman Winship,
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—— ——, *Usher.*
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James Dike, *Usher.*
Frank W. Freeborn, *Usher.*
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George A. Schmitt, *Teacher of German.*
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Charles H. Brooks, *Secretary.*
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Bedford street.

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John O. Norris,
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Manson Seavy,
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Alfred P. Gage,
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Jean Gustave Keetels, *Teacher of French.*
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Brig.-Gen. Hobart Moore, *Teacher of Military Drill.*
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M. L. Tucker, *First Assistant.*
Emily Weeks, *Second Assistant.*

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Helen A. Gardner,
Edna F. Calder,
Clara H. Balch,
Ellen M. Stevens.

Henri Morand, *Teacher of French.*
Benjamin F. Nutting, *Teacher of Drawing.*
John F. Stein, *Teacher of German.*
Julius Eichberg, *Teacher of Music.*
Brig.-Gen. Hobart Moore, *Teacher of Military Drill.*
Thomas Colligan, *Janitor.*

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Mary W. Hall, *First Assistant.*

FOURTH ASSISTANTS.

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Laura E. Hovey,
Harriet B. Luther.

Henri Morand, *Teacher of French.*
John F. Stein, *Teacher of German.*
Mercy A. Bailey, *Teacher of Drawing.*
Julius Eichberg, *Teacher of Music.*
Brig.-Gen. Hobart Moore, *Teacher of Military Drill.*
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H. Winslow Warren, *Usher.*
Katherine Whitney, *First Assistant.*
Emma G. Shaw, *Second Assistant.*
A. E. Somes, *Third Assistant.*

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Mary A. Wilcox,
Sarah Shaw.

Eugene Raymond, *Teacher of French.*
Lucas Baker, *Teacher of Drawing.*
Julius Eichberg, *Teacher of Music.*
Brig.-Gen. Hobart Moore, *Teacher of Military Drill.*
Joseph Smith, *Janitor.*

WEST ROXBURY HIGH SCHOOL.

Elm street, Jamaica Plain.

Edward W. Howe, *Master.*
Annie B. Lord, *Third Assistant.*

FOURTH ASSISTANTS.

Jennie R. Sheldon,
Louise M. Thurston.

John F. Stein, *Teacher of German.*
Lucy H. Garlin, *Teacher of Music.*
Chas. A. Barry, *Teacher of Drawing.*
Brig.-Gen. Hobart Moore, *Teacher of Military Drill.*
J. J. Wentworth, *Janitor.*

BRIGHTON HIGH SCHOOL.

Academy Hill.

Benj. Wormelle, *Master,*
Anna J. George, *Third Assistant.*
Sarah E. Waugh, *Fourth Assistant.*
Alfred Morand, *Teacher in French.*
Lucy H. Garlin, *Teacher of Music.*
Lucas Baker, *Teacher of Drawing.*
Brig.-Gen. Hobart Moore, *Teacher of Military Drill.*
J. R. Marston, *Janitor.*

SCHOOL DISTRICTS.

ARRANGED BY DIVISIONS.

FIRST DIVISION.

COMMITTEE.

George H. Plummer, *Chairman.*
Nahum Chapin,
William H. Finney,
Warren Fletcher, *Secretary.*
William J. Porter.

ADAMS DISTRICT.

Frank F. Preble, *Principal.*

ADAMS SCHOOL.

Belmont square, East Boston.

Frank F. Preble, *Master.*
Lewis H. Dutton, *Sub-Master.*
Mary M. Morse, *First Assistant.*
Mary A. Davis, *Second Assistant.*
Ellen M. Robbins, *Second Assistant.*

THIRD ASSISTANTS.

Lucy A. Wiggin,
Clara Robbins,
Harriet Sturtevant,
Clara J. Doane.
Sarah E. McPhaill,
Lina H. Cook,

C. E. Davison, *Janitor.*

PRIMARY SCHOOLS.

Adams School-house, Sumner street.

Ellen James,
Sara A. Cook,
Mary H. Allen,
Mary E. Wiggin,
Eliza A. Wiggin,
Anna E. Reed,
Grace E. Wasgatt.
C. E. Davison, *Janitor.*

CHAPMAN DISTRICT.

George R. Marble, *Principal.*

CHAPMAN SCHOOL.

Eutaw street, East Boston.

George R. Marble, *Master.*
Orlendo W. Dimick, *Sub-Master.*
Mary E. Allen, *First Assistant.*
Jane F. Reid, *Second Assistant.*
Maria D. Kimball, *Second Assistant.*

THIRD ASSISTANTS.

Sarah F. Tenney,
Sarah T. Synett,
Harriet E. Morrill,
Judith P. Meader,
—— ——,
Lucy E. Woodwell,
Mary E. Buffum.
Mrs. S. Cousens, *Sewing Teacher.*
Charles A. Neuert, *Janitor.*

PRIMARY SCHOOLS.

Webb School, Porter street.

Mary A. Shaw,
Abby D. Beal,
Ada D. Prescott.
A. D. Chandler,
Mrs. Matilda Davis, *Janitor.*

Tappan School, Lexington street.

Maria A. Arnold,
Mary C. Hall,
Marietta Duncan,
Clara A. Otis,
Calista W. McLeod,
Hannah F. Crafts.
Phineas Hull, *Janitor.*

EMERSON DISTRICT.

James F. Blackinton, *Prinicpal.*

EMERSON SCHOOL.

Prescott street, East Boston.

James F. Blackinton, *Master.*
J. Willard Brown, *Sub-Master.*
Elizabeth R. Drowne, *First Assistant.*
Louise H. Hotchkiss, *First Assistant.*
Bernice A. Demerritt, *Second Assistant.*
Ellenette Pillsbury, *Second Assistant.*

THIRD ASSISTANTS.

Mary A. Ford,
Mary D. Day,
Juliette J. Pierce,
—— ——,
Elizabeth A. Turner,
Harriet N. Weed,
Georgia H. Tilden.
Edward C. Chessman, *Janitor.*

PRIMARY SCHOOLS.

Emerson School-house.

Hannah L. Manson,
Almaretta J. Critchett.

Primary School-house, Princeton street.

Mary E. Plummer,
Margaret A. Bartlett,
Mary A. Oburg,
Florence H. Drew,
Harriet E. Litchfield,
—— ——,
Ernestine Ditson.
J. D. Dickson, *Janitor.*

LYMAN DISTRICT.

HOSEA H. LINCOLN, *Principal.*

LYMAN SCHOOL.

Corner of Paris and Decatur streets.

Hosea H. Lincoln, *Master.*
George K. Daniell, Jr., *Sub-Master.*
Cordelia Lothrop, *First Assistant.*
Eliza F. Russell, *Second Assistant.*
Mary A. Turner, *Second Assistant.*
Amelia H. Pittman, *Second Assistant.*

THIRD ASSISTANTS.

Lucy J. Lothrop,
Louise A. Small,
Mary P. E. Tewksbury,
Harriet N. Webster,
Irene A. Bancroft,
Sibylla A. Bailey,
Clara B. George.
William Gradon, *Janitor.*

PRIMARY SCHOOLS.

Austin School, Paris street.

Josephine A. Murphy,
Angelina M. Cudworth,
Emma P. Morey,
Sarah F. Lothrop,
Anna I. Duncan,
Florence Carver,
Frances I. Dayley,
Mary E. Morse.

Mrs. Higginson, *Janitor.*

SECOND DIVISION.

COMMITTEE.

Nahum Chapin, *Chairman*,
William H. Finney,
Charles C. Perkins,
Warren Fletcher, *Secretary*.
George H. Plummer.

BUNKER HILL DISTRICT.

Samuel J. Bullock, *Principal*.

BUNKER HILL SCHOOL.

Baldwin street, Charlestown.

Samuel J. Bullock, *Master*.
Henry F. Sears, *Sub-Master*.
Mary A. Eaton, *First Assistant*.
Abby P. Josselyn, *Second Assistant*.
Amy C. Hudson, *Second Assistant*.
Angelia M. Knowles, *Second Assistant*.

THIRD ASSISTANTS.

Ellen B. Wentworth,
Ida O. Hurd,
Ellen F. Sanders,
Lydia S. Jones,
Anna M. Prescott,
Georgiana A. Smith.
Josiah C. Burbank, *Janitor*.

PRIMARY SCHOOLS.

Bunker Hill School-house.

Anna R. Stearns.

Haverhill street.

Mary S. Thomas.
Helen G. Turner.
Margaret O'Brien, *Janitor*.

Bunker Hill street.

Mary E. Flanders,
Elizabeth B. Norton,
Sarah A. Smith,
Effie G. Hazen,
Carrie M. Arnold,
Sarah J. Worcester,
Ada E. Bowler,
Kate C. Thompson.
Josiah C. Burbank, *Janitor*.

FROTHINGHAM DISTRICT.

Caleb Murdock, *Principal.*

FROTHINGHAM SCHOOL.

Corner of Prospect and Edgeworth streets, Charlestown.

Caleb Murdock, *Master.*
William B. Atwood, *Sub-Master.*
Charlotte E. Camp, *First Assistant.*
Harriet E. Frye, *Second Assistant.*
Bial W. Willard, *Second Assistant.*

THIRD ASSISTANTS.

Ellen R. Stone,
Arabella P. Moulton,
Abby M. Clark,
Sarah H. Nowell,
Jennie E. Tobey,
Lucy A. Seaver,
Ellen A. Chapin.
Warren J. Small, *Janitor.*

PRIMARY SCHOOLS.

Frothingham School.

Persis M. Whitemore,
Martha Yeaton,
Julia M. Burbank.

Moulton street.

Helen E. Ramsay,
O H. Morgan,
Louisa W. Huntress,
Fanny M. Lamson.
George L. Mayo, *Janitor.*

HARVARD DISTRICT.

W. E. Eaton, *Principal.*

HARVARD SCHOOL.

Bow street.

W. E. Eaton, *Master.*
Darius Hadley, *Sub-Master.*
Abby B. Tufts, *First Assistant.*
Ann E. Weston, *Second Assistant.*
Sarah E. Leonard, *Second Assistant.*

THIRD ASSISTANTS.

Sarah A. Benton,
Mary A. Lovering,
Jennie E. Howard,
Martha F. Fay,
Edith W. Howe,
Emma F. Thomas,
Sarah J. Perkins.
Alonzo C. Tyler, *Janitor.*

PRIMARY SCHOOLS.

Bow street (Grammar-school Building).

Mary P. Howland.

Harvard Hill.

Fanny B. Hall,
Catharine C. Brower,
Fanny A. Foster,
Elizabeth B. Wetherbee,
Effie A. Kettell,
Elizabeth F. Doane,
Lucy M. Small,
Louisa A. Whitman.
George L. Mayo, *Janitor.*

Common street.

Elizabeth A. Pritchard,
Mary F. Kittredge,
Elizabeth R. Brower.
Lois A. Rankin.
William Holbrook, *Janitor.*

PRESCOTT DISTRICT.

George T. Littlefield, *Principal.*

PRESCOTT SCHOOL.

Elm street, Charlestown.

George T. Littlefield, *Master.*
Alonzo Meserve, *Usher.*
Delia R. Varney, *First Assistant.*
Mary C. Sawyer, *Second Assistant.*

THIRD ASSISTANTS.

Martha M. Kenrick,
Julia C. Powers,
Elizabeth J. Farnsworth,
Lyda A. Sears,
Frances A. Craigin,
Julia F. Sawyer.
Thomas Merritt, *Janitor.*

PRIMARY SCHOOLS.

Medford street.

Mary E. Smith,
Ellen Hadley.
Mrs. Berry, *Janitor.*

Polk street.

Frances M. Lane,
Zetta M. Mallard.
Alice M. Lyons, *Janitor.*

Bunker Hill street.

Elizabeth C. Bredeen.
Mrs. Mary Watson, *Janitor.*

WARREN DISTRICT.

GEORGE SWAN, *Principal.*

WARREN SCHOOL.

Corner of Pearl and Summer streets, Charlestown.

George Swan, *Master.*
E. B. Gay, *Sub-Master.*
Sarah M. Chandler, *First Assistant.*
Abby C. Lewis, *Second Assistant.*
Alice Hall, *Second Assistant.*
Annie D. Dalton, *Second Assistant.*

THIRD ASSISTANTS.

Elizabeth Swords,
Francis L. Dodge,
Abby E. Holt,
Ellen A. Pratt,
Annie M. Crozier,
Maria L. Bolan,
Marietta F. Allen,
D. L. Small, *Janitor.*

PRIMARY SCHOOLS.

Mead street.

M. Josephine Smith,
Effie C. Melvin,
Elizabeth W. Yeaton,
Abby P. Richardson.
Matthew Boyd, *Janitor.*

Cross street.

Caroline E. Osgood.
Abby O. Varney,
Alice M. Lyons, *Janitor.*

Warren School-house.

H. Elizabeth Cutter.

THIRD DIVISION.

COMMITTEE.

Charles C. Perkins, *Chairman.*
Ezra Palmer,
William H. Finney,
William J. Porter, *Secretary.*
William T. Adams.

BOWDOIN DISTRICT.

Daniel C. Brown, *Principal.*

BOWDOIN SCHOOL.

Myrtle street.

Daniel C. Brown, *Master.*
Sarah J. Mills, *First Assistant.*
Mary Young, *Second Assistant.*
Sarah O. Brickett, *Second Assistant.*

THIRD ASSISTANTS.

Eliza A. Fay,
Irene W. Wentworth,
Martha A. Palmer,
Ada L. Cushman,
Dora E. Pitcher,
S. Francis Perry.
Elizabeth D. Cutter, *Teacher of Sewing.*
Joseph S. Shannon, *Janitor.*

PRIMARY SCHOOLS.

Somerset street.

C. Eliza Wason,
Mabel West.
Thomas Freeman, *Janitor.*

Old Phillips School-house, Anderson street.

Sarah F. Russell,
Barbara C. Farrington,
Elizabeth R. Preston,
Josephine O. Hedrick,
Rose Prescott,
Clara J. Reynolds.
Ambrose H. Shannon, *Janitor.*

Blossom street.

Olive Ruggles,
Annie M. Heustis,
Lydia A. Isbell,
Mary E. Ames.
Charles C. Newell, *Janitor.*

ELIOT DISTRICT.

SAMUEL HERRINGTON, *Principal.*

ELIOT SCHOOL.

North Bennet street.

Samuel Harrington, *Master.*
Granville S. Webster, *Sub-Master.*
Frederick E. Whitney, *Usher.*
Frederic H. Ripley, *Usher.*
Frances M. Bodge, *First Assistant.*

THIRD ASSISTANTS.

Adolin M. Steele,
Elizabeth M. Turner,
O. Augusta Welch,
Kate L. Dodge,
Mary Heaton,
M. Ella Wilkins,
Lucette A. Wentworth,
Clara A. Newell,
Mary E. Hanney,
Isabel R. Haskins,
Sophia E. Raycroft.
P. J. Riordan, *Janitor.*

PRIMARY SCHOOLS.

Snelling place.

Emma C. Glawson,
Margaret E. Robinson,
Cleone G. Tewksbury,
Harriet E. Lampee,
Rosa M. E. Reggio,
Sarah A. Winsor.
Edgar M. Nason, *Janitor.*

Charter street.

Annie M. H. Gillespie,
J. Ida Monroe,
Juliaette Davis,
Sarah Ripley,
A. Augusta Colman,
Eliza Brintnall.
Isaac W. Navy, *Janitor.*

North Bennet street.

Mary E. Barrett,
Kate S. Sawyer.
W. S. Riordan, *Janitor.*

HANCOCK DISTRICT.

JAMES W. WEBSTER, *Principal.*

HANCOCK SCHOOL.

Parmenter street.

James W. Webster, *Master.*
Ellen C. Sawtelle, *First Assistant.*
Amy E. Bradford, *Second Assistant.*
Ellen A. Hunt, *Second Assistant.*
Marie L. Macomber, *Second Assistant.*

THIRD ASSISTANTS.

Joseph M. Robertson,
Helen M. Hitchings,
Susan E. Allen,
Mary E. Skinner,
Martha F. Winning,
Sophia L. Sherman,
O. M. E. Rowe.
Kate Doherty, *Sewing Teacher.*
Franklin Evelyth, *Janitor.*

PRIMARY SCHOOL.

Cushman School, Parmenter street.

Sarah E. Ward,
Adeline S. Bodge,
Harriet M. Fraser,
Teresa M. Gargan,
Harriet A. Farrow,
Rosanna B. Raycroft,
Mary J. Clark,
Marcella C. Halliday,
Sarah F. Ellis,
Elizabeth A. Fisk.
Enoch Miley, *Janitor.*

Ingraham School, Sheafe street.

Josephine B. Silver,
Clara E. Bell,
Esther W. Mansfield.
Francis Silver, *Janitor.*

Cheever School, Thacher street.

Mary Bonnie,
Kate T. Sinnott,
Sarah J. Capp.
Mrs. — Keefe, *Janitor.*

PHILLIPS DISTRICT.

SAMUEL SWAN, *Principal.*

PHILLIPS SCHOOL.

Phillips street.

Samuel Swan, *Master.*
Elias H. Marston, *Sub-Master.*
George Perkins, *Usher.*
Emily A. Moulton, *First Assistant.*

THIRD ASSISTANTS.

Carrie T. Haven,
Adeline F. Cutter,
Elvira M. Harrington,
Hannah M. Sutton,
Sarah W. I. Copeland,
Ruth E. Rowe,
Martha A. Knowles,
Martha F. Whitman,
Elizabeth L. West,
Helen M. Coolidge,
Eliza A. Corthell.
John A. Shannon, *Janitor.*

PRIMARY SCHOOLS.

Phillips street.

Mary E. Franklin,
Sarah A. M. Turner,
Evelyn E. Plummer.
John Armstrong, *Janitor.*

Chardon place.

Emeline C. Farley,
Ann M. F. Sprague,
Fanny R. Bowers,
Elizabeth S. Parker.
W. H. Palmer, *Janitor.*

WELLS DISTRICT.

ROBERT C. METCALF, *Principal.*

WELLS SCHOOL.

Corner Blossom and McLean street.

R. C. Metcalf, *Master.*
Abby J. Boutwell, *First Assistant.*
Ella F. Inman, *Second Assistant.*
Mary G. Shaw, *Second Assistant.*

THIRD ASSISTANTS.

Emma F. Colomy,
Mary S. Carter,
Mary M. Perry,
M. Isabella Bennett,
Lavinia M. Allen.
Mrs. Frances E. Stevens, *Sewing Teacher.*
James Martin, *Janitor.*

PRIMARY SCHOOLS.

Emerson School, Poplar street.

Maria W. Turner,
Eliza A. Freeman,
Anna A. James,
E. A. Brown,
Sarah C. Chevaillier,
L. M. A. Redding.
Mrs. McGrath, *Janitor.*

Dean School, Wall street.

Georgia D. Barstow,
Lois M. Rea,
Adelaide A. Rea,
Mary F. Gargan,
Annie B. Gould.

FOURTH DIVISION.

COMMITTEE.

Godfrey Morse, *Chairman.*
John G. Blake,
Ezra Palmer,
Abby W. May, *Secretary.*
John J. Hayes.

BOWDITCH DISTRICT.

ALFRED HEWINS, *Principal.*

BOWDITCH SCHOOL.

Corner of East and Cove streets.

Alfred Hewins, *Master.*
Susan H. Thaxter, *First Assistant.*
Mary M. T. Foley, *Second Assistant.*
Eliza M. Evert, *Second Assistant.*

THIRD ASSISTANTS.

Emma M. Savil,
Ruth H. Clapp,
Hannah E. G. Gleason,
Emma A. Gordon,
Ellen L. Collins.
Eliza A. Baxter, *Sewing Teacher.*

Nancy Ryan, *Janitor.*

PRIMARY SCHOOLS.

East street.

Amelia E. N. Treadwell,
Octavia C. Heard,
Sarah E. Lewis,
Priscilla Johnson,
Ellen E. Leach,
Susan Frizzell,
Maria J. Coburn,
Emma L. Pollex,
Julia M. Driscoll,
Mary J. Crotty,
Rebecca A. Buckley.
Jeremiah J. Murphy, *Janitor.*

East-street place.

Mrs. Fitzgerald, *Janitor.*

BRIMMER DISTRICT.

E. Bentley Young, *Principal.*

BRIMMER SCHOOL.

Common street.

E. Bentley Young, *Master.*
Quincy E. Dickerman, *Sub-Master.*
T. H. Wason, *Usher.*
Rebecca L. Duncan, *First Assistant.*

THIRD ASSISTANTS.

Luthera W. Bird,
Kate C. Martin,
Mercy T. Snow,
Annie P. James,
Amanda Snow,
Mercy A. Davie,
Sarah J. March,
Helen L. Bodge,
Eliza A. Foster.
George W. Fogg, *Janitor.*

PRIMARY SCHOOLS.

Starr King School, Tennyson street.

Nellie T. Higgins,
Sarah Farley,
Mary E. Tiernay.
E. L. Weston, *Janitor.*

Skinner School, corner Fayette and Church streets.

Frances B. Dewey,
Emma F. Burrill,
B. P. Burgess,
H. Ellen Boothby,
Malvina R. Brigham.
Ellen Lind, *Janitor.*

EXETER-STREET SCHOOL.

GRAMMAR CLASSES.

Harriet D. Hinckley, *First Assistant.*
Ella F. White, *Third Assistant.*
Eva D. Kellogg,
Adeline S. Tufts.
J. H. Elliott, *Janitor.*

QUINCY DISTRICT.

E. Frank Wood, *Principal.*

QUINCY SCHOOL.

Tyler street.

E. Frank Wood, *Master.*
George W. Neal, *Sub-Master.*
Henry B. Brown, *Usher.*
Annie M. Lund, *First Assistant.*

THIRD ASSISTANTS.

Mary L. Holland,
Emily J. Tucker,
Bridget A. Foley,
Margaret F. Tappan,
Charlotte L. Wheelwright,
Emily B. Peck,
Olive M. Page,
Harriette A. Bettis,
Emma K. Youngman.
James Daly, *Janitor.*

PRIMARY SCHOOLS.

Grammar School-house.

Mary E. Sawyer.

Way street.

Maria A. Callanan,
Charlotte L. Young,
Annie M. Reilly.
D. D. Towns, *Janitor.*

Genesee street.

Emily E. Maynard,
Harriet M. Bolman,
Annie T. Corliss.
Mrs. Toole, *Janitor.*

WINTHROP DISTRICT.

ROBERT SWAN, *Principal.*

WINTHROP SCHOOL.

Tremont street, near Eliot street.

Robert Swan, *Master.*
Susan A. W. Loring, *First Assistant.*
May Gertrude Ladd, *First Assistant.*
Emma K. Valentine, *Second Assistant.*
Mary F. Light, *Second Assistant.*
Carrie F. Welch, *Second Assistant.*
Annie J. Stoddard, *Second Assistant.*

THIRD ASSISTANTS.

Catherine K. Marlow,
Elizabeth S. Emmons,
Edith Adams,
Caroline S. Crozier,
Lizzie H. Bird,
Mary E. Barstow,
Mary J. Danforth,
Mary E. Davis,
Adelaide Meston,
Mary L. H. Gerry,
Margaret T. Wise,
Ellen M. Underwood.
Francis E. Stevens, *Sewing Teacher.*
A. H. B. Little, *Janitor.*

PRIMARY SCHOOLS.

Tyler street.

Mary B. Brown,
Julia A. McIntyre,
Henrietta Madigan,
Mary A. B. Gore,
Ella M. Seaverns,
Emma I. Baker.
Ellen McCarthy, *Janitor.*

FIFTH DIVISION.

COMMITTEE.

Wm. H. Learnard, Jr., *Chairman.*
Charles L. Flint,
John J. Hayes,
Godfrey Morse, *Secretary.*
Charles Hutchins.

DWIGHT DISTRICT.

James A. Page, *Principal.*

DWIGHT SCHOOL.

West Springfield street.

James A. Page, *Master.*
Walter S. Parker, *Sub-Master.*
Henry L. Sawyer, *Usher.*
Ruth G. Rich, *First Assistant.*

THIRD ASSISTANTS.

Mary C. R. Towle,
Emily F. Carpenter,
Sarah C. Fales,
Mary O. Lord,
Elizabeth G. Melcher,
Mary E. Trow,
Nellie L. Shaw,
Jeannie Eastman.

Edward Bannon, *Janitor.*

PRIMARY SCHOOLS.

Rutland street.

Augusta A. Davis,
Martha B. Lucas,
Sarah E. Crocker,
Henrietta Draper,
Fannie L. Willard,
Evelyn M. Walton.

C. P. Huggins, *Janitor.*

EVERETT DISTRICT.

George B. Hyde, *Principal.*

EVERETT SCHOOL.

West Northampton street.

George B. Hyde, *Master.*
S. Flora Chandler, *First Assistant.*
Janet M. Bullard, *Second First Assistant.*
Annie C. Ellis, *Second Assistant.*
Maria S. Whitney, *Second Assistant.*

THIRD ASSISTANTS.

Persis E. King,
Susan S. Foster,
Emily F. Marshall,
Abby C. Haslet,
Ann R. Gavett,
Almira S. Johnson,
Eva M. Keller,
E. L. P. Shannon,
Anna Grover.
Martha A. Sargent, *Sewing Teacher.*
Edward Bannon, *Janitor.*

PRIMARY SCHOOLS.

West Concord street.

Eliza C. Gould,
Mary H. Downe,
Kate M. Hanson,
Lydia A. Sawyer,
Clementine D. Grover,
Hannah M. Coolidge,
Adelaide B. Smith,
Emma Halstrick,
Lydia F. Blanchard,
Fanny M. Nason,
Evelyn E. Morse.
C. P. Huggins, *Janitor.*

FRANKLIN DISTRICT.

Granville P. Putnam, *Principal.*

FRANKLIN SCHOOL.

Ringgold street.

Granville B. Putnam, *Master.*
Jennie S. Tower, *First Assistant.*
Isabella M. Harmon, *Second First Assistant.*
Caroline A. Mason, *Second Assistant.*
Catharine T. Simonds, *Second Assistant.*
P. Catharine Bradford, *Second Assistant.*

THIRD ASSISTANTS.

Mary L. Wheeler,
Abbie M. Holder,
Margaret J. Crosby,
Margaret C. Schouler,
Elizabeth J. Brown,
Roxana W. Longley,
Kate E. Blanchard,
Mary A. Mitchell,
Annie E. L. Parker.
Catharine L. W. Bigelow, *Sewing Teacher.*
Mrs. Amos Lincoln, *Janitor.*

PRIMARY SCHOOLS.

Cook School, Groton street.

Harriet M. Faxon,
Georgianna E. Abbott,
Affie T. Wier,
Isadora Page,
Sarah A. Brown.
Martha Castell, *Janitor.*

Wait School, Shawmut avenue.

Josephine G. Whipple,
Georgiana A. Ballard,
Emma E. Allin,
E. Josephine Bates,
Kate R. Gookin,
Jennie E. Haskell,
Martha L. Beckler.
Mansfield Harvell, *Janitor.*

SHERWIN DISTRICT.

SILAS C. STONE, *Principal.*

SHERWIN SCHOOL.

Madison square.

Silas C. Stone, *Master.*
Frank A. Morse, *Sub-Master.*
Julia F. Long, *First Assistant.*
Elizabeth B. Walton, *Second Assistant.*
Lucy L. Burgess, *Second Assistant.*
Martha A. Smith, *Second Assistant.*
Sarah R. Bonney, *Second Assistant.*

THIRD ASSISTANTS.

Anna B. Carter,
E. Elizabeth Boies,
Josephine D. Snow,
Harriet A. Lewis,
Marian Henshaw,
Isadora Bonney,
Fanny McDonald,
Caroline K. Nickerson,
Louisa Ayer,
Fanny L. Stockman,
—— ——,
Alice T. Kelley.
Maria L. Young, *Sewing Teacher.*
Joseph G. Scott, *Janitor.*

PRIMARY SCHOOLS.

Weston street.

Anna G. Fillebrown, Harriet M. Burroughs,
Mary E. Gardner, Martha E. Page.
Charlotte White, *Janitor.*

Franklin place.

Annie E. Walcutt, Sarah E. Gould,
Sarah J. Davis, Emma L. Peterson.
Kate C. Connor, *Janitor.*

Avon place.

Abby E. Ford, Elizabeth F. Todd.
Patrick Higgins, *Janitor.*

Day's Chapel.

Martha A. Pope, Maria D. Faxon.
John Cole, *Janitor.*

Cabot street.

Mary F. Cogswell. Patrick Higgins, *Janitor.*

Warwick street.

Elizabeth A. Sanborn. Patrick Higgins, *Janitor.*

Mill Dam.

Annie H. Berry. Ann Moore, *Janitor.*

SIXTH DIVISION.

COMMITTEE.

Warren P. Adams, *Chairman.*
John G. Blake,
James Morse,
George A. Thayer, *Secretary.*
John J. Ryan.

ANDREW DISTRICT.

LEANDER WATERMAN, *Principal.*

ANDREW SCHOOL.

Dorchester street, South Boston.

Leander Waterman, *Master.*
Joshua M. Dill, *Usher.*
Elizabeth A. Winward, *First Assistant.*
Henrietta L. Dwyer, *Second Assistant.*

THIRD ASSISTANTS.

Sara W. Barrows,
Martha A. Jackson,
Mary E. Perkins,
Mary S. Beebe,
Lucy M. Marsh,
Francis M. Bell,
Esther F. Nichols.
Lizzie Kenna, *Sewing Teacher.*
Christopher Jones, *Janitor.*

PRIMARY SCHOOLS.

Ticknor Building.

Nellie W. Allen.

Gogin Building.

Mary A. Jenkins,
Jessie C. Tileston,
M. Louise Moody,
Estelle B. Jenkins,
Alice L. Littlefield,
Lizzie Ordway.

Methodist Chapel.

Ella L. Chittenden.

BIGELOW DISTRICT.

THOMAS H. BARNES, *Principal.*

BIGELOW SCHOOL.

Fourth street, corner of E street, South Boston.

Thomas H. Barnes, *Master.*
Fred. O. Ellis, *Sub-Master.*
J. Gardner Bassett, *Usher.*
Amelia B. Coe, *First Assistant.*

THIRD ASSISTANTS.

Ellen Coe,
Eliza B. Haskell,
H. A. Watson,
Mary Nichols,
Malvena Tenny,
Catharine H. Cook,
Abbie J. Adams,
Ellen L. Wallace,
Lucy C. Bartlett,
Harriet A. Clapp,
Lucy R. Cutter.
Samuel P. Howard, *Janitor.*

PRIMARY SCHOOLS.

Hawes Hall, Broadway.

Alice Danforth,
Abby B. Kent,
Lucy E. T. Tinkham,
Ann J. Lyon,
Mary P. Colburn,
Mary E. Johnston,
Lucy E. Johnson.
Joanna Brennan, *Janitor.*

Simonds School, Broadway.

Tiley A. Bolkom,
Emily T. Smith,
Mary L. Howard.
Joanna Brennan, *Janitor.*

Ward-Room Building, corner of Dorchester and Fourth streets.

Josephine B. Cherrington,
Sarah A. Graham.
Matthew G. Worth, *Janitor.*

Bank Building, E street.

Elizabeth G. Bailey.

GASTON DISTRICT.

C. GOODWIN CLARK, *Principal.*

GASTON SCHOOL.

L street, corner of Fifth street, South Boston.

C. Goodwin Clark, *Master.*
Lydia Curtis, *First Assistant.*
Sarah C. Winn, *Second Assistant.*
Harriet E. Marcy, *Second Assistant.*

THIRD ASSISTANTS.

Myra S. Butterfield,
Emogene F. Willett,
Fannie Blanchard,
Ellen R. Wyman,
—— ——.
Mary E. Patterson, *Sewing Teacher.*
S. W. Pollard, *Janitor.*

PRIMARY SCHOOLS.

City Point, Fourth street.

Elizabeth M. Easton,
Electa M. Porter,
Josephine F. Krogman,
Mary A. Crosby,
Maud Stephens,
Carrie W. Haydn.
A. D. Bickford, *Janitor.*

GASTON SCHOOL.

S. Lila Huckins,
Julia A. Evans,
Mary L. Nichols.

LAWRENCE DISTRICT.

AMOS M. LEONARD, *Principal.*

LAWRENCE SCHOOL.

Corner B and Third streets, South Boston.

Amos M. Leonard, *Master.*
D. A. Hamlin, *Sub-Master.*
Grenville C. Emery, *Usher.*
W. E. C. Rich, *Usher.*
Alice Cooper, *First Assistant.*
Emma P. Hall, *Second Assistant.*

THIRD ASSISTANTS.

Martha S. Damon,
Mary E. H. Ottiwell,
Catharine M. Lynch,
Margaret Holmes,
Hannah E. Burke,
Margaret A. Gleason,
Margarette A. Moody,
Mary A. Conroy,
Mary A. Montague,
Abbie C. Burge,
Mary A. A. Dolan,
Filena Hurlbutt,
M. Louise Gillett.
Daniel E. Connor, *Janitor.*

PRIMARY SCHOOLS.

Mather Building, Broadway, near B street.

Lucy M. Cragin,
Sarah E. Lakeman,
Ada A. Bradeen,
Willietta Bicknell,
Lizzie A. McGrath,
Minnie F. Crosby,
Annie M. Connor.
Charles E. Smith, *Janitor.*

Parkman School, Silver street, near Dorchester avenue.

Maggie J. Leary,
Mary G. A. Toland,
Isabelle M. Kelren,
Hattie L. Rayne,
Amelia McKenzie,
Emma F. Gallagher.
Margaret Johnson, *Janitor.*

Fifth-street School, between B and C streets.

Ann E. Newell,
Ophelia S. Newell,
Sarah M. Brown,
Mary W. Bragdon,
Alice W. Baker,
Lizzie Crawford,
Minnie F. Keenan.
P. F. Turish, *Janitor.*

LINCOLN DISTRICT.

Alonzo G. Ham, *Principal.*

LINCOLN SCHOOL.

Broadway, near K street, South Boston.

Alonzo G. Ham, *Master.*
Henry H. Kimball, *Sub-Master.*
Margaret J. Stewart, *First Assistant.*
Mary E. Balch, *Second Assistant.*

THIRD ASSISTANTS.

Susan K. Pratt,
Sarah M. Tripp,
Sarah A. Curran,
Vodisa J. Comey,
Georgette Custer,
Mary A. H. Fuller,
Silence A. Hill,
Annie C. Littlefield.
Joshua B. Emerson, *Janitor.*

PRIMARY SCHOOLS.

Capen School, corner of I and Sixth streets.

Mary E. Powell,
Laura J. Gerry,
Mary E. Perkins,
Ella M. Warner,
Susan Hutchinson,
Fannie G. Patten,
Mary H. Faxon.
A. D. Bickford, *Janitor.*

NORCROSS DISTRICT.

Josiah A. Stearns, *Principal.*

NORCROSS SCHOOL.

Corner of D and Fifth streets, South Boston.

Josiah A. Stearns, *Master.*
Mary J. Fennelly, *First Assistant.*
Fiducia S. Wells, *Second First Assistant.*
Sarah A. Gallagher, *Second Assistant.*
Juliette Wyman, *Second Assistant.*
Juliette Smith, *Second Assistant.*

THIRD ASSISTANTS.

Mary A. Neill,
Mary E. Downing,
Anna M. Prescott,
Miranda A. Bolkcom,
Harriet E. Johnston,
Emma L. Eaton,
Mary R. Roberts.
Sarah J. Bliss, *Sewing Teacher.*

Samuel T. Jeffers, *Janitor.*

PRIMARY SCHOOLS.

Drake School, corner of C and Third streets.

Mary K. Davis,
Sarah V. Cunningham,
Abbie C. Nickerson,
Nellie J. Cashman,
Fannie W. Hussey,
Lucinda Smith.

W. B. Newhall, *Janitor.*

Vestry, corner of D and Silver streets.

Ellen T. Noonan.
James M. Demeritt, *Janitor.*

SHURTLEFF DISTRICT.

Henry C. Hardon, *Principal.*

SHURTLEFF SCHOOL.

Dorchester street, South Boston.

Henry C. Hardon, *Master.*
Anna M. Penniman, *First Assistant.*
Ellen E. Morse, *Second First Assistant.*
Abby S. Hammond, *Second Assistant.*
Emeline L. Tolman, *Second Assistant.*

THIRD ASSISTANTS.

Martha E. Morse,
Margaret T. Pease,
Catharine A. Dwyer,
Eliza F. Blacker,
Sarah L. Garrett,
Roxanna N. Blanchard,
Harriet S. Howes,
Jane S. Bullard,
Edith A. Pope,
Marion W. Rundlett.
Eliza M. Cleary, *Sewing Teacher*,
William Dillaway, *Janitor*.

PRIMARY SCHOOLS.

Clinch Building, F street.

Ella R. Johnson,
Lucy A. Dunham,
Mary E. Morse,
Julia F. Baker,
Alice G. Dolbeare,
Alice C. Ryan.
William Dillaway, *Janitor*.

SEVENTH DIVISION.

COMMITTEE.

Lucia M. Peabody, *Chairman.*
James Morse,
John W. Ryan,
George M. Hobbs, *Secretary.*
F. Lyman Winship.

COMINS DISTRICT.

CHARLES W. HILL, *Principal.*

COMINS SCHOOL.

Tremont street, corner of Gore avenue.

Charles W. Hill, *Master.*
H. H. Gould, *Sub-Master.*
Julia Scribner, *First Assistant.*
Lillie E. Davis, *First Assistant.*
Martha A. Cummings, *Second First Assistant.*
Sarah E. Lovell, *Second Assistant.*
Almira W. Chamberline *Second Assistant.*

THIRD ASSISTANTS.

Annetta F. Armes,
Kate M. Murphy,
Charlotte P. Williams,
Adelina May,
Julia A. C. Gray,
Emma E. Towle,
Emily Swain,
Delia M. Upham,
Caroline A. Gragg.
Delia Mansfield, *Sewing Teacher.*
George S. Hutchinson, *Janitor.*

PRIMARY SCHOOLS.

Francis street.

Ella A. Chester,
Mary E. Crosby.
Mrs. McGowan, *Janitor.*

Phillips street.

Annie E. Clark,
Penelope G. Hayes,
Helen P. Hall,
Sarah E. Haskins,
Addie M. Warde,
Sarah B. Bancroft,
Carrie M. Brackett,
Lizzie A. Colligan.
George S. Hutchinson, *Janitor.*

Smith street.

Isabel Thatcher,
Geo. S. Hutchinson, *Janitor.*

King street.

Lizzie F. Johnson,
Adaline Beal,
Caroline D. Putnam,
Carrie J. Harris,
Mary J. Backup,
Delia T. Killian.
S. B. Pierce, *Janitor.*

DEARBORN DISTRICT.

William H. Long, *Principal.*

DEARBORN SCHOOL.

Dearborn place.

William H. Long, *Master.*
Harlan P. Gage, *Sub-Master.*
L. Anna Dudley, *First Assistant.*
Philena W. Rounseville, *Second First Assistant.*

SECOND ASSISTANTS.

Martha D. Chapman,
Frances L. Bredeen,
Helen F. Brigham.

THIRD ASSISTANTS.

Cynthia G. Melvin,
Sarah H. Hosmer,
Bell J. Dunham,
Anne M. Backup,
Elizabeth E. Stafford,
Lizzie M. Wood,
Elizabeth R. Wallis,
Phebe H. Simpson,
Louise M. Epmeyer,
Josephine A. Keniston,
Mary F. Walsh.
Catharine G. Hosmer, *Sewing Teacher.*
Michael J. Lally, *Janitor.*

PRIMARY SCHOOLS.

Yeoman street.

Annie M. Balch,
Susan F. Rowe,
Ellen M. Oliver,
Mary E. Nason,
Ada L. McKean,
Annie M. Croft,
Louise D. Gage,
Kate A. Nason.
Augustus L. Litchfield, *Janitor.*

Eustis street.

Mary F. Neale,
Abbie L. Baker,
Clarabel E. Chapman,
Mary K. Wallace.
Sarah Stalder, *Janitor.*

George street.

Mary M. Sherwin,
Elizabeth E. Backup,
Emily M. Pevear,
Flora J. Cutter,
Clara F. Conant,
—— ——.
Michael Carty, *Janitor.*

DUDLEY DISTRICT.

LEVERETT M. CHASE, *Principal.*

DUDLEY SCHOOL FOR BOYS.

Corner of Dudley and Putnam streets.

Leverett M. Chase, *Master.*
Henry L. Clapp, *Usher.*
W. Bertha Hintz, *First Assistant.*
Harriet E. Davenport, *Second Assistant.*

THIRD ASSISTANTS.

Ruth H. Brady,
Mary H. Cashman,
Luette S. James,
Marietta Rice,
—— ——.
James Hughes, *Janitor.*

DUDLEY SCHOOL FOR GIRLS.

Bartlett street.

Sarah J. Baker, *Principal.*
Dora A. Pickering, *First Assistant.*
Jane S. Leavitt, *Second Assistant.*

THIRD ASSISTANTS.

Mary C. Whippey,
Eliza Brown,
Mary L. Gore,
Mary S. Sprague.
Emma A. Waterhouse, *Sewing Teacher.*
Thomas Colligan, *Janitor.*

PRIMARY SCHOOLS.

Vernon street.

Anna M. Stone,
S. Louisa Durant,
Anna T. Bicknell,
Ella T. Jackson.
P. F. Higgins, *Janitor.*

Dudley School-house, Putnam street.

Harietta M. Wood,
Mary A. Morse,
Emma L. B. Hintz,
Celia A. Scribner.

LEWIS DISTRICT.

WILLIAM L. P. BOARDMAN, *Principal.*

LEWIS SCHOOL.

Corner of Dale and Sherman streets.

William L. P. Boardman, *Master.*
Charles F. King, *Sub-Master.*
Sarah E. Fisher, *First Assistant.*
Elizabeth S. Morse, *Second Assistant.*
Eunice C. Atwood, *Second Assistant.*

THIRD ASSISTANTS.

Mary D. Chamberlain.
Emily B. Eliot,
Henrietta M. Young,
Louisa J. Hovey,
Susan A. Dutton,
H. Amelia Smith,
Elizabeth Gerry.
Malvina L. Sears, *Sewing Teacher.*
Antipas Newton, *Janitor.*

PRIMARY SCHOOLS.

Thornton street.

Joanna Monroe,
Alice C. Pierce.
Delia Leach, *Janitor.*

Winthrop street.

Frances N. Brooks,
Susan R. Gifford,
Helen Crombie,
Mary F. Baker.
Catharine Dignon, *Janitor.*

Monroe street.

Maria L. Burrell.
Mrs. Kirby, *Janitor.*

Mt. Pleasant avenue.

Fanny H. C. Bradley,
Eloise B. Walcutt.
Catherine Dignon, *Janitor.*

Quincy street.

Almira B. Russell,
Florence L. Shedd.
Gilbert Hasty, *Janitor.*

LOWELL DISTRICT.

DANIEL W. JONES, *Principal.*

LOWELL SCHOOL.

Centre street.

Daniel W. Jones, *Master.*
George T. Wiggin, *Usher.*
Florence E. Tilton, *First Assistant.*
Eliza C. Fisher, *Second Assistant.*

THIRD ASSISTANTS.

E. Josephine Page,
Anna L. Hudson,
Susan G. B. Garland,
Mary A. Cloney,
M. F. Cummings.
Annie Brazer, *Sewing Teacher.*
Frank L. Harris, *Janitor.*

PRIMARY SCHOOLS.

Centre street.

Jeannie B. Lawrence,
Ellen H. Holt,
Emma M. Waldock,
Helen O. Wyman.
Frank L. Harris, *Janitor.*

Curtis street.

Sarah P. Blackburn,
Mary J. Capen.
James Waters, *Janitor.*

Codman avenue, corner of Washington street.

Alice M. May,
Isabelle Shove.
Peter Gorman, *Janitor.*

Heath street.

M. Ella Mulliken.
Catherine H. Norton, *Janitor.*

EIGHTH DIVISION.

COMMITTEE.

F. Lyman Winship, *Chairman.* William T. Adams, *Secretary.*
Henry P. Bowditch.

ALLSTON DISTRICT.

G. W. M. Hall, *Principal.*

ALLSTON SCHOOL.

North Harvard street, Brighton.

G. W. M. Hall, *Sub-Master.* Sara F. Boynton, *Second Assistant.*

THIRD ASSISTANTS.

Persis B. Swett, Alice A. Swett,
Clara Hooker, Mary J. Cavanagh.
Mary F. Child, Sarah Stall, *Sewing Teacher.*
Laura E. Viles, Patrick McDermot, *Janitor.*

PRIMARY SCHOOLS.

Everett School, corner of Pearl and Auburn streets.

Sarah F. Monto, Patrick McDermot, *Janitor.*
Anna M. Farrington.

Auburn School, School street, N. Brighton.

Elizabeth P. Brewer, Patrick McDermot, *Janitor.*
Cate McNamara.

Webster School, Webster place.

Emma F. Martin. Otis Wilde, *Janitor.*

BENNETT DISTRICT.

E. H. Hammond, *Principal.*

BENNETT SCHOOL.

Chestnut Hill avenue, Brighton.

E. H. Hammond, *Master.*
George Palmer, *Second Assistant.*
Melissa Abbott, *Second Assistant.*

THIRD ASSISTANTS.

Anna Leach,
Charlotte Adams,
Annie M. Hotchkiss,
Emma F. Chesley.
Charles F. Wheeler, *Janitor.*

PRIMARY SCHOOLS.

Bennett School.

Fannie W. Currier.

Winship place, Agricultural Hill.

Abbie L. Hoar,
Susan A. Edwards,
Emma P. Dana.
J. R. Marston, *Janitor.*

Oak square.

Bertha Sanger.
Charles F. Wheeler, *Janitor.*

CENTRAL DISTRICT.

John T. Gibson, *Principal.*

CENTRAL SCHOOL.

Burroughs street, Jamaica Plain.

John T. Gibson, *Master.*
Mary A. Gott, *Second Assistant.*
C. J. Reynolds, *Second Assistant.*

THIRD ASSISTANTS.

Emily A. Hanna,
M. E. Stuart,
Victoria M. Goss,
M. M. Sias.
Rufus A. Perry, *Janitor.*

PRIMARY SCHOOLS.

Thomas street, Jamaica Plain.

Mary E. Tufts, Emma Smith.
Patrick Curley, *Janitor.*

Child street.

Mary E. Brooks, Annie E. Burton.
William F. Fallon, *Janitor.*

CHARLES SUMNER DISTRICT.

Artemas Wiswall, *Principal.*

FLORENCE SCHOOL.

Florence street, West Roxbury.

Artemas Wiswall, *Usher.*
Charlotte B. Hall, *Second Assistant.*
Fannie Ashenden, *Third Assistant.*
Elvira L. Austin, *Third Assistant.*
Julia Z. Ridgway, *Sewing Teacher.*
John L. Chenery, *Janitor.*

PRIMARY SCHOOLS.

Poplar street.

Ella M. Hancock, Sarah Ashenden.
John L. Chenery, *Janitor.*

Washington street.

Ella F. Howland. Mrs. Kate Morrissey, *Janitor.*

Canterbury street.

Ellen B. DeCosta, Sarah M. Hogan.
Bridget Norton, *Janitor.*

HILLSIDE DISTRICT.

Albert F. Ring, *Principal.*

HILLSIDE SCHOOL.

Elm street, Jamaica Plain.

Albert Franklin Ring, *Sub-Master.*
Ellen A. Williams, *Second Assistant.*

THIRD ASSISTANTS.

Amy Hutchins,
Alice B. Stephenson,
Mary E. Very,
Emily H. Maxwell.
Nellie I. Lincoln, *Sewing Teacher.*
S. S. Marrison, *Janitor.*

PRIMARY SCHOOLS.

Green street.

Margaret E. Winton,
Anna M. Call.
Mrs. J. Fallon, *Janitor.*

Washington street.

E. Augusta Randall,
Jennie A. Eaton.
Michael Kelley, *Janitor.*

MOUNT VERNON DISTRICT.

ABNER J. NUTTER, *Principal.*

MOUNT VERNON SCHOOL.

Mount Vernon street, West Roxbury.

Abner J. Nutter, *Usher.*
Emily M. Porter, *Second Assistant.*

THIRD ASSISTANTS.

Emma J. Fossett,
Helen C. Steele.
J. Z. Ridgeway, *Sewing Teacher.*
James M. Davis, *Janitor.*

PRIMARY SCHOOLS.

Centre street.

Adah E. Smith.
James M. Davis, *Janitor.*

Baker street.

Ann M. Harper.
William J. Noon, *Janitor.*

Washington street.

Ada F. Adams.
Evelyn Mead, *Janitor.*

NINTH DIVISION.

COMMITTEE.

William T. Adams, *Chairman and Secretary.*
Warren P. Adams, Henry P. Bowditch.

EVERETT DISTRICT.

Henry B. Miner, *Principal.*

DORCHESTER-EVERETT SCHOOL.

Sumner street, Dorchester.

Henry B. Miner, *Master.* Helen M. Hills, *Second Assistant.*
Mary F. Thompson, *Second Assistant.*

THIRD ASSISTANTS.

Henrietta A. Hill, Anna M. Foster.
Sara M. Bearse, Mrs. A. S. Ryder, *Sewing Teacher.*
Maud M. Clark, Lawrence Connor, *Janitor.*

Dorchester avenue.

M. Rosalia Merrill. John Reardon, *Janitor.*

PRIMARY SCHOOLS.

Boston street.

Cora L. Etheridge, Annie W. Ford.
Lawrence Connor, *Janitor.*

Everett avenue.

Marion W. Brooks. Lawrence Connor, *Janitor.*

Howard avenue.

Matilda Mitchell. John Reardon, *Janitor.*

Dorchester avenue.

Annie F. Ordway. John Reardon, *Janitor.*

GIBSON DISTRICT.

WILLIAM E. ENDICOTT, *Principal.*

GIBSON SCHOOL.

School street, Dorchester.

William E. Endicott, *Sub-Master.*
Ida L. Bowdoin, *Second Assistant.*
Elizabeth E. Shove, *Third Assistant.*
Charlotte E. Baldwin, *Third Assistant.*
Hannah Clarkson, *Janitor.*

ATHERTON SCHOOL.

Columbia street.

Ella S. Wales, *Second Assistant.*
Nellie G. Sandford, *Third Assistant.*
W. Wales, *Janitor.*

PRIMARY SCHOOLS.

School street, Dorchester.

E. Louise Brown,
Ella Whittredge.
Hannah Clarkson, *Janitor.*

Columbia street.

Edna L. Gleason.
—— —— *Janitor.*

Thetford avenue.

Hannah E. Pratt.
Timothy Donahue, *Janitor.*

HARRIS DISTRICT.

EDWIN T. HORNE, *Principal.*

HARRIS SCHOOL.

Corner of Adams and Mill streets, Dorchester.

Edwin T. Horne, *Master.*
Ann Tolman, *Second Assistant.*

THIRD ASSISTANTS.

E. M. Harriman,
Elizabeth P. Boynton,
Almy C. Plummer,
Marion B. Sherburne.
Mrs. A. S. Ryder, *Sewing Teacher,*
John Buckpitt, *Janitor.*

PRIMARY SCHOOLS.

Harris School-house.

Marion B. Sherburne,
Delia R. Capen,
Elizabeth A. Flint.
John Buckpitt, *Janitor.*

MATHER DISTRICT.

Daniel B. Hubbard, *Principal.*

MATHER SCHOOL.

Meeting-House Hill, Dorchester.

Daniel B. Hubbard, *Master.*
Olive S. Boothby, *Second Assistant.*
Lucy J. Dunnels, *Second Assistant.*

THIRD ASSISTANTS.

Mary C. Jacobs,
Annie L. Jenkins,
S. Kate Shepard,
Annette Glidden.
Mrs. A. S. Ryder, *Sewing Teacher.*
Benjamin C. Bird, *Janitor.*

PRIMARY SCHOOL.

Mather School-house.

Ella L. Howe,
M. Esther Drake,
Mary P. Pronk.

Old Mather School-house, Meeting-House Hill.

Louisa P. Smith.
Benjamin C. Bird, *Janitor.*

MINOT DISTRICT.

Joseph T. Ward, Jr., *Principal.*

MINOT SCHOOL.

Walnut street, Dorchester.

Joseph T. Ward, Jr., *Sub-Master.*
Isabel F. P. Emery, *Second Assistant.*

THIRD ASSISTANTS.

Mary E. Glidden,
Sophia W. French,
Kate M. Adams,
Ellen M. S. Treadwell.

George R. Tarbell, *Janitor.*

PRIMARY SCHOOLS.

Walnut street.

Angelina A. Brigham,
—— ——,
Frances E. Hildreth.

Adams street.

Mary J. Pope,
James Milton, *Janitor.*

STOUGHTON DISTRICT.

EDWARD M. LANCASTER, *Principal.*

STOUGHTON SCHOOL.

River street, Lower Mills.

Edward M. Lancaster, *Master.*
Elizabeth H. Page, *Second Assistant.*

THIRD ASSISTANTS.

Isabelle A. Worsley,
Margaret Whittemore,
Ellen E. Burgess,
Elizabeth Jane Stetson.
M. Taylor, *Janitor.*

PRIMARY SCHOOLS.

River street Lower Mills.

Caroline Melville,
Esther S. Brooks,
Julia B. Worsley.
M. Taylor, *Janitor.*

TILESTON DISTRICT.

N. H. WHITTEMORE, *Principal.*

TILESTON SCHOOL.

Norfolk street, Mattapan.

N. H. Whittemore, *Usher.*

THIRD ASSISTANT.

Martha A. Baker.

PRIMARY SCHOOL.

Norfolk street.

Elizabeth S. Fisher.
John Grover, *Janitor.*

SPECIAL DEPARTMENTS.

VOCAL MUSIC.

Julius Eichberg, General Supervisor of Music, and Teacher of Music in the High Schools, 154 Tremont street.

DIRECTORS OF MUSIC.

Joseph B. Sharland, 25 Hanson street.

H. E. Holt, Haverhill. Address at the rooms of the Board, Mason street.

Luther Whiting Mason, 5 Sharon street. Address at the rooms of the Board, Mason street.

Hiram Wilde, 762 Washington street.

J. Munroe Mason, Charlestown.

Lucy H. Garlin, West Roxbury.

DRAWING.

Walter Smith, Normal Art Instructor, and General Supervisor of Drawing, City Point, South Boston.

SPECIAL INSTRUCTORS.

Charles A. Barry, Latin, West Roxbury High, Creighton House. Address a Mason street.

Henry Hitchings, English High School. Address, Dedham.

Mary Carter, Girls' High School, 39 Somerset street.

Mercy A. Bailey, Normal School, Girls' High School, and Dorchester High School. Creighton House.

Benjamin F. Nutting, Roxbury High School.

Lucas Baker, Charlestown High School, Brighton High and Deer Island.

These Instructors also supervise the Drawing in the Grammar and Primary Schools as far as their time allows.

SPECIAL SCHOOLS.

DEAF-MUTES.

Warrenton street.

Sarah Fuller, *Principal.*
Annie E. Bond, *Head Assistant.*

ASSISTANTS.

Ella C. Jordan,
Kate D. Williams,
Mary F. Bigelow,
Alice M. Jordan,
Mary N. Williams,
Manella G. White.

LICENSED MINORS.

North Margin street.

Sarah A. Brackett.

East-street place.

M. Persis Taylor.

KINDERGARTEN.

Corner of Somerset and Allston streets.

Lucy H. Symonds, *Principal.*

EVENING SCHOOLS.

Evening High School, South street.

R. P. Owen, *Principal.*

East Boston. Lyman School-house.

Charles G. Moore, *Principal.*

Charlestown-Prescott School-house.

S. S. Coats, *Principal.*

Charlestown-Warren School-house.

Miss F. V. Keyes, *Principal.*

North Bennet street, Ward Room.

Salem D. Charles, *Principal.*

Anderson street, Ward Room.

Miss C. A. Caverley, *Principal.*

Wells School-house, Blossom street.

Henry A. Parker, *Principal.*

Old Franklin School-house, Washington, near Dover street.

C. K. Cutter, *Principal.*

Warrenton-street Chapel.

W. G. Babcock, *Principal.*

Hudson street, Ward Room.

G. A. T. Lincoln, *Principal.*

South Boston. 331 Broadway.

J. C. Coombs, *Principal.*

South Boston. Lincoln School-house.

George J. Tufts, *Principal.*

Highlands. Cabot street, Bath-house.

F. L. Washburn, *Principal.*

Highlands. Eustis street.

Alfred Bunker, *Principal.*

West Roxbury. Jamaica Plain.

J. M. Hodgate, *Principal.*

Dorchester Almshouse.

G. H. Marshall, *Principal.*

Neponset.

H. J. Kilby, *Principal.*

EVENING DRAWING SCHOOLS.

Tennyson street.

FREE HAND.

George H. Bartlett, *Principal.*

Charlestown. City Hall.

C. S. Ward, *Acting Principal.*

East Boston. Old Lyman School, Meridian street.

H. N. Mudge, *Acting Principal.*

Dorchester. High School.

G. A. Loring, *Acting Principal.*

Jamaica Plain. Dudley Hall.

L. M. Hallowell, *Acting Principal.*

TRUANT OFFICERS.

The following is the list of the Truant Officers, with their respective districts, and with the school sections embraced in each district: —

Officers.	Districts.	School Sections.
Chase Cole, *Chief.*	North.	Eliot, Hancock.
C. E. Turner.	East Boston.	Adams, Chapman, Lyman and Emerson.
Geo. M. Felch.	Central.	Bowdoin, Winthrop, Phillips and Brimmer.
Jacob T. Beers.	Southern.	Bowditch, Quincy and Lawrence.
Phineas Bates.	South Boston.	Bigelow, Gaston, Lincoln, Norcross and Shurtleff.
A. M. Leavitt.	South.	Dwight, Everett, Rice and Franklin.
Sam'l McIntosh.	Roxbury, East Dist.	Lewis, Dudley and Dearborn.
E. F. Mecuen.	Roxbury, West Dist.	Comins, Sherwin and Lowell, Dudley (*Girls*).
Jeremiah M. Swett.	Dorchester, Northern District.	Everett, Mather and Andrew.
James P. Leeds.	Dorchester, Southern District.	High, Harris, Gibson, Tileston, Stoughton and Minot.
Charles S. Woofindale.	Charlestown, West District.	Frothingham, Harvard and Wells.
Sumner P. White.	Charlestown, East District.	Warren, Bunker Hill, Prescott and High.
Warren J. Stokes.	West Roxbury.	Central, Charles Sumner, Hillside and Mt. Vernon.
H. F. Ripley.	Brighton.	Bennett and Allston.

Truant Office, 30 Pemberton Square.

The chief officer is in attendance every school day from 12 to 1; other officers, the first and third Mondays each month, at 4 P. M. Order boxes will be found at the several school-houses, and at police stations 1, 3, 4, 5, 6, 7, 13 and 14.

CONTENTS.

CONTENTS.

PAGE

ANNUAL REPORT OF THE SCHOOL COMMITTEE.

Reorganization of the School Board 3
The School System 9
School Hygiene 13
The Teachers' Association 15
Vacation Schools 14
City Charity 17
Primary School Buildings 17
Drawing 19
Free Evening Drawing Schools 31
Music 34

REPORT OF THE SUPERINTENDENT OF PUBLIC SCHOOLS.

Summary of Statistics 45
Population 45
Schools 45
School-houses 46
Teachers 47
Pupils 48
Expenditures 49
Hierarchy of Schools 51
Normal School 53
High Schools 57
Latin School 60
English High School 61
Girls' High School 62
Roxbury High School 63
Dorchester High School 64
Charlestown High School 65
West Roxbury High School 66
Brighton High School 67
Grammar Schools 68
Primary Schools 72
Evening Schools 76
Deaf-Mute School 79

PAGE

Schools for Licensed Minors 79
Kindergarten 80
The Co-ordination of Grades 81
The number of Pupils to a Teacher 84
School Accommodations 87
Industrial Schools 94
School Hygiene 100
Examination of Schools 126
The Boston Schools at the Vienna Exposition 143
Courses of Study 144
School Sessions 145
The Superintendency 146
The Reputation of our Schools 148
Duties performed 152
Visit to Western Cities 153
Personal 153

Statistics Accompanying the Superintendent's Report 155

Report of the Committee on Drawing.
Programme of Instruction in Drawing. Primary Schools 185
Grammar Schools 189
High Schools 192

Report of the Committee on Music.
Programme of Instruction in Music. Primary Schools 198
Grammar Schools 200
High Schools 201

Report of the Committee on High Schools 203
Uniform Three Years' Course of Study 206
Report relating to Latin and English High Schools 209
Course of Study for Latin School by President Eliot 220
Remarks on Teaching the Course 222
Course of Study for Latin School submitted by the Committee 226

Report of the Committee on Evening Schools 241
Programme of Studies in Evening High School 243

Annual School Festival.
Address of Warren P. Adams 248
Address of Mayor Cobb 250

Medals, Prizes and Diplomas.
Franklin Medals 255
Lawrence Prizes 256
Diplomas of Graduation 258

Catalogue of the Normal School 277
Roster of the Boston School Regiment 297
Schedule of Salaries 305

PAGE

Description and Dedication of the Winthrop School-house 307
List of School-houses 321
Sanitary Requirements of School Architecture 329
Organization of School Committee 357
Truant Officers 408

CITY OF BOSTON.

City Document No. 102.

REPORT OF THE SUPERINTENDENT OF PAWNBROKERS.

To the Honorable Committee on Licenses: —

GENTLEMEN, — The undersigned respectfully submits the following report of business transacted in this department for the past nine months, April to Dec. 15, 1877: —

Stolen property recovered	$5,081.50
Property awaiting settlement	$200.00
Fees collected for licenses, and paid to City Clerk	$792.00
Pawnbrokers licensed and doing business .	84
Second-hand dealers licensed and doing business	378
Pawnbrokers' licenses cancelled . . .	4
Complaints against pawnbrokers investigated .	220
Complaints in court for violation of ordinances,	3
Complaints against junk dealers investigated .	84
Cases in court against junk dealers for violation of the ordinances	3

One important case in court, awaiting trial, for property stolen, July 30, amounting to $900.00.

One second-hand dealer's license revoked.

I would suggest to the committee the importance of amending the ordinance in relation to pawnbrokers, making it compulsory to keep jewelry, watches, musical instruments, opera-glasses, and all articles not of a perishable nature, for six months after the time for which the article was pawned. I find a great deal of trouble arising from the fact that there is no law compelling the brokers to keep the goods a specified time before selling. (In New York the time is one year.)

The rate of interest also is very much higher here than in New York, Philadelphia, or San Francisco. In New York the rate made by law is 25 per cent. per annum on loans not exceeding $25, and 10 per cent. on loans exceeding $25, under penalty of $100 for each offence.

In Boston the custom is for the brokers to charge 5 per cent. per week; but I find many that charge 20 per cent. per week, and a *few* make terms at a less rate than 5 per cent. per week. It seems to me that something should be done to make an ordinance regulating this important matter. I would recommend that 2½ per cent. per week be the maximum on all articles up to $20, under the penalty of $100 for each offence.

The fee in Boston is only $2 for each license issued for pawnbrokerage, and in New York the sum of $50 is charged, and a great many brokers in this city are willing to pay $100 for a license, in order that the business may be conducted by proper parties, and in a fair and honest manner; and they should be made to give two sureties, in the sum of $500, conditioned for the due observance of all such ordinances made or in force respecting pawnbrokers, during the continuance of such license. By this means we can have a better class of men engaged in the brokerage business, and it will have the effect of driving out the bad ones, and bringing the pawnbrokerage business up to a proper business standard. As it is now, there are some very fine men in this business, but it seems to me that there are now altogether too many small shops in the pawnbroker's business in this city for the good of the City of Boston.

I would recommend that the pawnbrokers be compelled to close their places of business at 8 P.M. in summer and 7 P.M. in winter, under a penalty of $50 for each offence.

And in relation to dealers in second-hand clothing, I respectfully suggest a new form of license to govern their purchases and sales. I would recommend a new form of license for the dealer in second-hand clothing, confining them to purchases of all kinds of clothing, boots, shoes, etc., but preventing them from dealing in jewelry of any kind, such as watches, chains, silver or gold, opera-glasses, fire-arms, etc., etc., and requiring them to close at 7 P.M. in winter and 8 P.M. in summer.

JAS. K. CROWLEY,
Supt. Pawnbrokers.

CITY OF BOSTON.

City Document No. 103.

METROPOLITAN RAILROAD. — FIFTY-SECOND LOCATION.

In Board of Aldermen, Dec. 24, 1877.

Alderman Robinson submitted the following from the Committee on Paving: —

The Committee on Paving, to whom was recommitted the petition of the Metropolitan Railroad Company for a change of location on Washington street, between Temple place and Summer street, respectfully recommend the passage of the accompanying order of location.

For the Committee,
R. W. ROBINSON,
Chairman.

Ordered, That the Metropolitan Railroad Company be and it is hereby authorized and empowered to change the location and position of that part of its single track which lies in Washington street between Summer street and Temple place, and to lay down an additional track on said part of said street, so that it shall have and maintain two tracks on that part of Washington street which lies between Summer street and Temple place, as follows, viz.: —

The most westerly of said tracks to commence at a point in the track of the Metropolitan Railroad, as now laid down in said Washington street, ten feet north of the northerly line of Summer street, and to extend to and connect with the track of said Metropolitan Railroad on Temple place. The most easterly track to commence at a point in the track of the South Boston Railroad, as now laid down in said Washington street, ten feet north of the northerly line of Summer street, and to extend to and connect with the track of the Metropolitan Railroad south of Temple place.

Said Metropolitan Railroad Company are also authorized and empowered to connect, by means of curved tracks, the most westerly track above mentioned with the

track of the South Boston Railroad on Summer street, and the most easterly track with the track of the Metropolitan Railroad on Summer street; the tracks and connections described in this order being shown by red lines on a plan drawn by W. S. Barbour and A. Hodges, civil engineers, dated Dec. 21, 1877, and deposited in the office of the Superintendent of Streets, and said tracks are to be laid down in the position designated on said plan, the centre line of the two tracks on Washington street coinciding with centre line of said street, and the exterior rails of said respective tracks to be nine feet and five-hundredths from the sidewalks at a point near Summer street, and eight feet and seven-tenths from the sidewalks near Temple place, as laid down on said plan.

Said Metropolitan Railroad Company are hereby authorized and directed to take up and remove so much of the single track and its connections, now laid down on Washington street, between Summer street and Temple place, as shall not be required by said company in the construction of the tracks located by this order.

The right to lay down the tracks located by this order is upon the condition that the whole work of laying down the same, the form of rail to be used, and the kind and quality of material used in paving said track, shall be under the direction, and to the satisfaction, of the Committee on Paving and the Superintendent of Streets, and shall be approved by them. Also upon the condition that said Metropolitan Railroad Company shall accept this order of location, and shall agree in writing to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk within thirty days of the date of the passage of this order; otherwise it shall be null and void.

Read twice and passed.

S. F. McCLEARY,
City Clerk.

CITY OF BOSTON.

City Document No. 104.

SIXTH REPORT OF THE BOARD OF COMMISSIONERS OF THE DEPARTMENT OF PARKS FOR THE CITY OF BOSTON.

To the Honorable the City Council of the City of Boston: —

The Commissioners of Parks respectfully submit the following

REPORT.

On the 23d day of July the City Council passed the following order: —

In Board of Aldermen, July 23, 1877.

Ordered, That the Treasurer be, and he hereby is, authorized to borrow, under the direction of the Committee on Finance, the sum of four hundred and fifty thousand dollars, for the purpose of purchasing land for a park and streets connected therewith; said money, or so much as may be required, to be expended by the Park Commissioners in the purchase of not less than one hundred acres of land or flats situate within the area bounded by Parker street, Huntington avenue extended in the direction of Tremont and Francis streets, Longwood avenue, Brookline avenue, and the Boston and Albany Railroad, with approaches from Beacon street west of Chester Park, Boylston street extended from Chester Park westerly, and Huntington avenue extended, — the land or flats so to be purchased shall be located with special reference to the improvement of the sewerage of the city.

Said park to be of such shape as not to require other adjoining lands to make it symmetrical, and to be bounded on all sides by public avenues to be taken from the land purchased; the price to be paid for said lot not to exceed ten cents per superficial foot.

Passed in Common Council; yeas 57, nays 10. Came up for concurrence. Read and concurred; yeas 9, nays 3.

Approved by the Mayor, July 23, 1877.

Acting under the special authority and instructions contained in the foregoing order, the Commissioners proceeded to examine and survey the territory designated, and to open negotiations for the purchase of lands. It was evident that the whole of the region within the prescribed limits should be studied with reference to the economical use of the land for streets and building purposes, and the relation of the

same to the park itself. The plotting of the adjoining territory, as shown by the accompanying map, has been done under the advice and with the encouragement of the Board of Street Commissioners, and, wherever the rights of the Commonwealth were concerned, after consultation with the State Board of Land Commissioners. These locations for streets are, nevertheless, only offered as suggestions, and are not binding upon any parties in interest. It is not assumed that this plan will prove to be the best that can be made, either in regard to the general requirements of the region or in its relation to the park, and it is not unlikely that changes and improvements may suggest themselves when the details shall receive attention from the department having them in charge. It was also necessary to consider what disposition should be made of the waters of Stony Brook and Muddy river, which now are discharged into the Back Bay. These streams should be diverted from their present courses and conducted into Charles river; but all sewerage which they now receive should be otherwise provided for.

In relation to the former, the City of Boston, by annexation, acquired the rights which the City of Roxbury had by an indenture made the 28th day of December, 1864, by and between the said City of Roxbury and the Boston Water Power Company, and recorded with Suffolk Deeds, lib. 852, fol. 265, in which the Boston Water Power Company granted the right to lay out, construct, and maintain the necessary drainage through the lands of the said Boston Water Power Company from the Roxbury line to Charles river.

By act of the Legislature, chap. 267, of the year 1872, the town of Brookline and the City of Boston were empowered to divert the waters of Muddy river so as to make them flow in a more direct line to Charles river, through the lands of any person or corporation as they shall adjudge to be necessary for the public convenience or the public health. It is for the interests of the town and city that united action should be taken at once, as authorized by the act.

Feasible routes to Charles river are indicated on the map, but the execution of the work belongs to another department of the government more competent to decide upon the details than this. It is recommended that the subject receive early attention, both for sanitary reasons and to facilitate the improvement of the park and adjacent territory.

The conditions contained in the order compelled the Commissioners to proceed in the work of securing land in a peculiar manner. It could only be obtained by actual pur-

chase, at no higher price than ten cents per square foot. It was held by various owners, corporate and individual, some non-residents, in some instances by trustees and guardians, and in others the estates were involved in legal complications. The peculiar forms of many of the smaller estates increased the difficulty of adjusting the boundaries of a park to the common advantage of public and private interests. These difficulties could not be overcome unless the owners were prepared to coöperate in carrying out the scheme as proposed in the order. The Commissioners are gratified to report that, with unimportant exceptions, such has been the case, and that the owners have met them in a liberal spirit. The requirements of the order have been complied with, so far as the work has progressed, with the addition of some features which will increase the value of the adjacent lands and the accessibility of the park, and the future sanitary condition of the city.

ENTRANCES.

Beacon Entrance, 300 feet wide, opens from Beacon street, near the sluice-ways, 610 feet west of West Chester park; joins

Commonwealth-avenue Entrance, thence to and over the Boston & Albany Railroad by a bridge, into the park, a length, from Beacon street to the park, of 900 feet.

If the waters of Charles river should be used in the basin of the park, the route of the connecting canal will be through this entrance. The order does not authorize the extension of the Beacon Entrance to Charles river, as contemplated in the Commissioners' plan of 1876. It is recommended that this addition be made as a valuable part of the scheme.

Boylston Entrances are by Boylston street extended, which street crosses the park to Brookline avenue.

Westland Entrance opens from Parker street, opposite a new street 80 feet wide, leading from West Chester park, named Westland avenue, the lands for which, as the Commissioners are advised, are given to the city in consideration of the location of this fine entrance, with a width of 300 feet on Parker street, and increasing to 500 feet at the park boundary.

Huntington Entrance is at the junction of Huntington avenue and Parker street; is 200 feet wide and 400 feet long.

Parker-Hill Entrance opens from Huntington avenue, op-

posite Bumstead lane; has an average width of 200 feet, and is 900 feet long.

Longwood Entrance opens from Brookline avenue, opposite Maple avenue; is 200 feet wide and 950 feet long.

The Road surrounding the park is laid out 50 feet wide, and will be, with its chief approaches, over two and one-half miles long. Upon this road, at convenient intervals, the streets of the adjacent territory will open, or, in other words, these streets will radiate from the park. This road will supply a frontage for dwellings, with great varieties of exposure and park views, conditions which appear to be especially adapted to the tastes of the citizens of Boston.

THE PARK.

The Park proper, as figured in the accompanying map, is located within the limits prescribed by the order. Beginning on the southerly side of the Boston & Albany Railroad, with a width of 400 feet, it widens thence at angles of about 45 degrees to the eastern and western Boylston-street Entrances, and at these points reaching its greatest width of 1,450 feet. The eastern boundary extends southerly from Boylston street, parallel to and distant from Parker street, 216 feet, crossing the Westland Entrance to Huntington Entrance, 2,400 feet; thence by a curved line of about 650 feet radius, to Parker-Hill Entrance, 1,500 feet; thence by a curved line of about 1,700 feet radius, to Longwood entrance, 1,300 feet; thence by a serpentine line to the western Boylston-street Entrance, 2,750 feet. The area within these lines is 90 acres; the longest straight line within the park and entrances is from Huntington avenue to the Boston & Albany Railroad, 4,700 feet, or nearly one mile.

Commonwealth avenue has been completed during the past season to West Chester park. It will be observed that from this point the direction of the avenue has been changed from a straight line, as shown upon the joint plan of the State Board of Land Commissioners, the City of Boston, and the Boston Water Power Company, dated Dec. 6th, 1864, and is deflected to the point of junction of Beacon street with Brookline and Brighton avenues. An agreement to this change has been made by formal instruments, by the parties in interest above-named, and approved by the Governor and Council.[1]

By this change the avenue is brought into better relations

[1] See Appendix A and B.

with thoroughfares already existing, and can be continued, as required, through Longwood, on the Beacon-street line. The expense of heavy filling, and a costly bridge over the Boston and Albany Railroad, will be avoided, and the contiguous lands more economically used for building purposes.

The volume of business traffic and pleasure-driving now concentrated on the narrow mill-dam, is a source of constant and increasing danger and inconvenience, and suggests the necessity of relief by the early completion of Commonwealth avenue.

The Commissioners regret that they are not prepared to report the final completion of their work under the order at this time. The delay has occurred not from any insurmountable obstacles, but from the novelty of the negotiations; the intricacy of surveys of an unimproved region, much of it being under water, containing estates whose limits in many cases have never been accurately defined by permanent monuments, and from other temporary causes beyond the immediate control of parties in interest. The examination of titles has also proved to be an intricate and laborious task.

For the purpose of facilitating the completion of the purchases the City Council passed the following order: —

IN BOARD OF ALDERMEN, December 24, 1877.

Whereas, The Park Commissioners were authorized by an order of the City Council, approved by the Mayor on the 23d day of July, 1877, to purchase not less than one hundred acres of land or flats on the Back Bay, in the City of Boston, as appears by said order, and whereas the tract of land selected by the Park Commissioners is owned in parcels by a large number of persons and corporations, and it is found impracticable to complete the examinations of the titles and pass the deeds, and complete the purchase of all said lands simultaneously, it is hereby

Ordered, That the Park Commissioners be, and they are hereby authorized to complete the purchase of any part or parts of the said tract upon the terms provided in the said order, at such times as they shall deem expedient.

Passed in Common Council. Came up for concurrence. Read and concurred.

Approved by the Mayor December 24, 1877.

Conformably to the above order, of the $106\frac{115}{1000}$ acres comprised in the park, the deeds have been passed and the money has been paid for 2,763,832 square feet, or $63\frac{448}{1000}$ acres. A deed has also been passed conveying about 20 acres to the city, which will be paid for when the examination of the title can be completed. The Commissioners hold the owners' bonds for deeds for 19 acres, and a recorded vote of the Trustees of the Eliot School Fund, agreeing to sell $2\frac{353}{1000}$ acres, making in all about 105 acres, leaving less

than one acre, which is owned by eight persons, for seven-eighths of which no papers have yet been obtained, and one undivided sixth interest in another small parcel, which cannot be secured until a trustee is appointed.

Respectfully submitted,

CHARLES H. DALTON,
WM. GRAY, Jr.
CHARLES S. STORROW,
} *Commissioners.*

Boston, December 29, 1877.

APPENDIX A.

[COPY.]

This agreement, entered into by and between the Commonwealth of Massachusetts, acting by its Board of Land Commissioners, and the Boston Water Power Company, a corporation organized and existing under the laws of the Commonwealth of Massachusetts, Witnesseth: —

That it is hereby mutually agreed that the direction of Commonwealth avenue westerly from West Chester park, in the city of Boston, shall be deflected and changed from a straight line, as shown on a plan hereto annexed, dated June 1, 1877, a duplicate copy of which is filed with said Board of Land Commissioners, and that otherwise all the rights and obligations of the contracting parties hereto, as to said avenue, shall be and remain the same as though the direction of said avenue was not changed as herein provided.

In witness whereof, the said Commonwealth of Massachusetts, by its said Commissioners, has signed and sealed these presents, this nineteenth day of December, in the year of our Lord eighteen hundred and seventy-seven.

WILLARD P. PHILLIPS, [Seal.]
EDW'D C. PURDY, [Seal.]
HORACE C. BACON, [Seal.]
Land Commissioners.

Signed, sealed, and delivered in presence of
FRED'K ABBOTT.

BOSTON WATER POWER COMPANY,
By
JAMES S. WHITNEY, *President.* [Seal.]
W. B. BROWN, *Treasurer.*

SUFFOLK, ss. BOSTON, December 19, 1877.

Then personally appeared the within named Edward C. Purdy and acknowledged the foregoing instrument to be the free act and deed of this Commonwealth.

Before me, DAVID PULSIFER,
Justice of the Peace.

COMMONWEALTH OF MASSACHUSETTS.

IN COUNCIL, December 21, 1877.

Approved.

HENRY B. PEIRCE, *Secretary.*

[SEAL.]

APPENDIX B.

[COPY.]

Know all Men by these Presents, That the Commonwealth of Massachusetts, acting by its Board of Land Commissioners, in consideration of one dollar to said Commonwealth paid by the city of Boston, the receipt whereof is hereby acknowledged, and in further consideration of the laying out by the city of Boston of a Public Park on the Back Bay, does hereby grant, convey, and release unto the said city of Boston, its successors and assigns, so far as said Commonwealth has any right or interest therein, the right to locate, lay out, have, hold, enjoy, and maintain forever, in accordance with law, a Public Park, and all the Parkways shown on an outlined plan hereto annexed, a duplicate copy whereof is filed with said Board of Land Commissioners; hereby waiving any rights said Commonwealth may have therein, under any provisions in any indentures heretofore made between said Commonwealth of Massachusetts and the Boston Water Power Company, in relation to any part of the lands included within the limits of said Park and Parkways.

In witness whereof, the said Commonwealth of Massachusetts, by its said Commissioners, has signed and sealed these presents, this nineteenth day of December, in the year of our Lord eighteen hundred and seventy-seven.

WILLARD P. PHILLIPS, [Seal.]
EDW'D C. PURDY, [Seal.]
HORACE C. BACON, [Seal.]
Land Commissioners.

Signed, sealed, and delivered in presence of
FRED'K ABBOTT.

SUFFOLK, ss. BOSTON, December 19, 1877.

Then personally appeared the within named Edward C. Purdy and acknowledged the foregoing instrument to be the free act and deed of the Commonwealth.

Before me, DAVID PULSIFER,
Justice of the Peace.

COMMONWEALTH OF MASSACHUSETTS.

IN COUNCIL, December 21, 1877.

Approved.

HENRY B. PEIRCE, *Secretary.*

[SEAL.]

The Boston Water Power Company hereby assents to the foregoing release to the city of Boston.

THE BOSTON WATER POWER COMPANY,
By
JAMES S. WHITNEY, *President.* [Seal.]
W. B. BROWN, *Treasurer.*

LIBRARY
SITY OF ILLINOIS

PARK DEPARTMENT
CITY OF BOSTON
1877.

BACK BAY PARK.

Scale 200 Feet to an Inch

CITY OF BOSTON.

City Document No. 105.

SECOND SEMI-ANNUAL REPORT OF THE INSPECTORS OF PRISONS AND HOUSES OF DETENTION IN SUFFOLK COUNTY, DECEMBER, 1877.

IN BOARD OF ALDERMEN, January 5, 1878.

The special committee of the Board of Aldermen, who were appointed to inspect the prisons and houses of detention within the County of Suffolk, and make the examinations and reports required by the Statutes of the Commonwealth, beg leave to submit their second semi-annual report for the municipal year 1877.

Your committee visited the House of Correction and Lunatic Hospital at South Boston, and the Suffolk County Jail, on Charles street, on the 19th of December, and the Houses of Industry and Reformation, at Deer Island, on the 27th of December. All the institutions were found in good order and condition and the prisoners well cared for. At the House of Correction six hundred and thirteen able-bodied inmates were fully employed, and there was no apprehension of any scarcity of work. The cells, workshops, and all the buildings connected with the institution were in perfect order; the health of the inmates generally was excellent.

The Lunatic Hospital is old, and in some respects unfitted for the purposes of a hospital, particularly as regards the ventilation of the basement story, where most of the unmanageable patients are confined; but, under the able superintendence of Dr. Walker, many difficulties have been overcome, and the health of the patients well cared for. At some future day it may be considered not only a matter of duty, but also of necessity, and, in fact, of economy, to build a new building, large enough to accommodate our own insane, within convenient distance of their friends and relatives, instead of sending them to the expensive State institutions, which are already overcrowded with patients. Many patients are now awaiting the completion of the Danvers Asylum, which, when opened, it is believed will soon be fully occupied, without affording much, if any, relief to the hospital at South Boston.

There was some complaint made at the jail about the

sameness of the food; no change whatever is made, the bill of fare being precisely the same every day in the year. This has been the case for a long series of years. Upon examination your committee found the food sweet and palatable. There was no fault found with the quality. As most of the inmates are confined here only temporarily, and as many of them are supplied with delicacies by their friends during the period of their detention, your committee do not deem it advisable to recommend any change.

The institutions at Deer Island were found in their usual good order. These and the House of Correction we consider model institutions. For cleanliness, order, and the care of the inmates, we doubt if any similar institutions in the country will compare with them. The prisoners at Deer Island were very generally employed, and when the facilities for making paving-blocks are completed, there will be no lack of employment for all who are able to work. The city expends large sums of money annually for paving-blocks, and there is every reason to believe that the work can be done profitably at the island, and made to contribute to the support of the institutions.

This labor does not interfere with any branch of industry in which our citizens are interested, as paving-blocks are supplied by contractors from without the State. The committee recommends this new enterprise to the favorable consideration of the next City Council.

A considerable amount of work is performed at Deer Island, which makes but very little show in the annual returns. Great improvements have been made within the past few years upon the island itself, such as grading, constructing new avenues, and filling up low places. In this way considerable land has been reclaimed from the sea and made productive. The farm is cultivated with excellent success, the crops this year having been unusually large.

Great attention is given to the preparation of the food for the inmates. The bill of fare is changed every day. A considerable quantity of the food consumed is raised upon the island. On the day of the visit the new piggery contained about four hundred hogs, in all stages of growth.

Copies of the reports, showing the condition of the several institutions, and covering the facts required by the statutes, are appended hereto.

Respectfully submitted,

HUGH O'BRIEN,
CLINTON VILES,
GEORGE DUNBAR,
Committee of Inspectors.

SUFFOLK COUNTY JAIL.

BOSTON, Dec. 31, 1877.

To the Honorable Board of Aldermen, Inspectors of Prisons in Suffolk County: —

GENTLEMEN, — The total number of prisoners held in this Jail, by authority of law, on December 19, 1877, the day of your inspection, was 134.

Total number committed from date of your previous inspection, June 27, 1877, to December 19, 1877, was 1,446.

During the past six months there occurred three cases of contagious diseases among the prisoners, peculiar and unprecedented, viz.: one of mumps, August 27, 1877; one of scarlet fever, September 30, 1877; and one of typhoid fever, November 30, 1877. They were severally sent to the City Hospital for treatment, and all recovered.

Frank J. Coughlin, a prisoner held for non-payment of two fines and costs, for carrying a dangerous weapon, and for breaking glass, was pardoned by the Governor September 4, 1877.

Very respectfully,

JOHN M. CLARK,
Sheriff.

HOUSE OF INDUSTRY, HOUSE OF REFORMATION, AND TRUANT SCHOOL.

To the Inspectors of Prisons for the County of Suffolk: —

Gentlemen, — The following report of commitments to, and discharges from, the House of Industry, House of Reformation, and Truant School, from June 28, 1877, to December 27, 1877, both inclusive, is respectfully submitted: —

House of Industry.

Commitments.

Drunkenness	2,710
Larceny	255
Assault and battery	175
Common drunkard	107
Vagabond	102
Idle and disorderly	86
Common night-walker	50
Fornication	27
Maliciously breaking glass	27
Disturbing the peace	20
Malicious injury to property	12
Receiving stolen property	7
Keeping house of ill-fame	6
Embezzlement	5
Keeping a noisy and disorderly house	3
Common railer and brawler	3
Threatening an assault	2
Common beggar	2
Assault on an officer	2
Standing on sidewalk in violation of a city ordinance	2
Obtaining property by false pretences	2
Indecent exposure	1
Stubborn child	1
Unlawful bathing	1
Neglecting to provide for his family	1
Fast driving	1
Playing cards on the Lord's day	1
Carried forward,	3,611

Brought forward,	3,611
Malicious mischief	1
Evading payment of railroad fare	1
Being present at a game of cards on Lord's day	1
Disturbing public school	1
Breaking and entering	1
Attempting to rescue a prisoner	1
Being an accessory before the fact of — a larceny	1
Total	3,618

Discharges.

Expired sentence	2,832
Pardoned by the Directors	250
Paid fine	413
Died	8
Bailed	6
Sent to insane asylum	2
Pardoned by the Governor	1
Total	3,512

Summary.

Number remaining June 27, 1877	714
" committed since " "	3,618
Total	4,332
" discharged since June 27, 1877	3,512
" remaining December 27, 1877	820

HOUSE OF REFORMATION.

Commitments.

	Boys.	Girls.	Total.
Larceny	18	3	21
Stubbornness and disobedience	11	3	14
Breaking and entering	5		5
Breaking and entering and larceny	2		2
Absentees	4		4
Juvenile vagrant	1	1	2
Total	37	11	48

Discharges.

	Boys.	Girls.	Total.
Expired sentence	5	2	7
Pardoned by Directors	43	7	50
Total	48	9	57

Summary.

Number remaining June 27, 1877: —	
Boys, 203; girls, 30. Total	233
Number committed since: —	
Boys, 37; girls, 11. Total	48
	281
Number discharged since: —	
Boys, 48; girls, 9. Total	57
Number remaining: —	
Boys, 192; girls, 32. Total	224

TRUANT SCHOOL.

Commitments.

Being truants	38
Being absentees	9
Total	47

Discharges.

Expired sentence	26
Pardoned by Directors	8
Total	34

Summary.

Number remaining June 27, 1877	100
Number committed since	47
	147
Number discharged since	34
Number remaining	113

GUY C. UNDERWOOD,
Superintendent.

HOUSE OF CORRECTION.

Boston, Dec. 21, 1877.

To the Inspectors of Prisons and Houses of Detention in Suffolk County: —

GENTLEMEN, — The committee visited the House of Correction in South Boston, Dec. 19th, 1877. The number of prisoners remaining June 26th, 1877, was — males, 542; females, 68; total, 610.

Committed from June 26, 1877, to Dec. 19, 1877 — males, 393; females, 67; total, 460.

Discharged from June 26, 1877, to Dec. 19, 1877 — males, 364; females, 92; total, 456.

Remaining Dec. 19, 1877—males, 571; females, 43; total, 614.

MISCELLANEOUS.

Discharged at expiration of sentence . . .	427
Pardoned by Governor	6
Paid fine and costs	8
Discharged by order of Municipal Court after serving three months	13
Died	2

The health of the prisoners has been generally good. No epidemic sickness has prevailed.

The sanitary condition of the prison is excellent, the institution in all its parts being kept clean and well ventilated.

The discipline of the prison continues as heretofore, and the punishments inflicted are the same, viz., deprivation of beds and confinement in solitary cells, but one inmate being confined in a cell at any one time.

The food furnished the prisoners is of good quality, and the quantity is sufficient for their daily needs.

LABOR: The amount of work done during the past six months has been about the same as during the previous half-year. At the present time all the machines are employed, with fair prospects to continue them so.

Respectfully,

M. V. B. BERRY,

Master.

LUNATIC HOSPITAL.

Return of the Boston Lunatic Hospital to the Inspectors of Prisons, for the term ending December 19, 1877.

Remaining at the inspection, June 26, 1877: —		
Males	96	
Females	98	
		194
Admitted since: —		
Males	7	
Females	9	
		16
Total number, during the term		210
Discharged: —		
Recovered	7	
Much improved	3	
Died	4	
		14
Total number remaining at last inspection, Dec. 19, 1877		196
Males	96	
Females	100	
		196
Causes of Death: —		
Exhaustion of Chronic Mania	2	
General Paralysis ("Paresis")	1	
Congestion of Lungs (in Consumption)	1	
		4

The health of the Hospital has been remarkably good during the term, as will be seen by a glance at the number and the causes of deaths. It should be borne in mind that this term includes August and September, the two most sickly months, as well as those having the first frosty and very trying nights.

The percentage of recoveries is very satisfactory and encouraging.

The number of admissions has again been small, — too small, — much too small, considering our means, limited though they are.

The Hospital fails, every year, to do its full quota of good to our citizens, who suffer bitterly therefore, because of that well intended, but unfortunate, Order, restricting the action of the Judge of Probate. Why may it not be rescinded? Surely, the Judge of Probate and the Board of Directors can be intrusted with a matter with which they are so familiar, and in which they are so deeply interested!

All the requirements of the law are believed to have been fully complied with, in the matters of clothing, bathing, cleanliness, ventilation, etc., as far as possible.

Respectfully submitted,

CLEMENT A. WALKER,
Supt. Boston Lun. Hospital.

CITY OF BOSTON.

City Document No. 106.

HIGHLAND STREET RAILWAY CO. — NINTH LOCATION.

In Board of Alderman, Jan. 5, 1878.

The Committee on Paving, to whom was recommitted the petition of the Highland Street Railway Company, for the right to enter its car-house on Northampton street, respectfully recommend the passage of the accompanying order.

For the Committee,

R. W. ROBINSON,

Chairman.

Ordered : That in addition to the rights heretofore granted to the Highland Street Railway Company, to lay down tracks in several of the streets of the City of Boston, said company shall have the right to lay down two curved tracks to connect its tracks on Northampton street with the car-house recently erected on the northerly side of said street, near Tremont street; said curved tracks being shown on a plan drawn by W. S. Barbour and A. Hodges, Civil Engineers, dated Dec. 17th, 1877, and deposited in the office of the Superintendent of Streets.

The right to lay down the tracks located by this order is upon the condition that the whole work of laying down said tracks, the precise location of the same, the form of rail to be used, and the kind and quality of material used in paving said tracks shall be under the direction and to the satisfaction of the Committee on Paving and the Superintendent of Streets, and shall be approved by them; also upon the condition that said Highland Street Railway Company shall accept this order of location, and shall agree in writing to comply with the conditions therein contained, and shall file said acceptance and agreement with the City Clerk, within thirty days of the date of the passage of this order; otherwise it shall be null and void.

Read twice and passed.

S. F. McCLEARY,

City Clerk.

CITY OF BOSTON.

City Document No. 107.

FINAL PROCEEDINGS OF THE COMMON COUNCIL FOR 1877.

In Common Council, Jan. 3, 1878.

Mr. J. J. Flynn offered the subjoined resolution of thanks (Mr. Beeching presiding) : —

"*Resolved*, That the thanks of the Common Council of the City of Boston for 1877 are hereby tendered to Benjamin Pope, Esq., as a recognition of the urbanity, fidelity, and ability with which he has discharged the duties of President of this Board during the past year, and as a tribute of the hearty wishes of the members for his future health and prosperity."

Said resolution was read twice and passed unanimously, the members present rising in their places and voting therefor.

The President, having resumed the chair, to said resolution made a reply.

On motion of Mr. Burke : —

Ordered, That the President of the Council be requested to furnish a copy of his address, that the same may be printed and bound with the City Documents.

Attest :

W. P. GREGG,

Clerk of the Common Council.

ADDRESS OF PRESIDENT POPE.

Gentlemen of the Common Council : — When by your favor I was elected to the honorable position of President of this Common Council, personally unknown as I was to so many of you, I felt that you had reposed in me a confidence that invoked the exercise of my best endeavors. To discharge the duties of the office with fairness and impartiality

between the members of this Council, and with a due regard to the public interests, has been my constant aim; and, while I have not been conscious at any time of having intentionally swerved from what seemed to me to be the strict line of duty, yet no one has been more sensible than I have myself of my own deficiencies, and how far I have fallen short of reaching my own ideal of a presiding officer. The duties which I have been called upon to perform have been more onerous, and at times more perplexing, than usually devolve upon the President of this Common Council. I perceived, as the year progressed, as we were getting more and more acquainted, that I was continually receiving proofs of your confidence and friendly feeling toward me, rendering my duties less and less burdensome.

The resolution which you have just passed will be treasured up by me with thankful remembrance as a token of your kindness and good-will toward me, rather than as a measure of my own qualifications. In common with my predecessors, I am glad of this opportunity to acknowledge my indebtedness to Mr. Gregg, the faithful and efficient Clerk, for the valuable advice and assistance which he has always been ready to give with a kindness and cheerfulness that have made a pleasure of my necessities. And, so long as he may be spared with health and strength to perform the duties of his office, so long will his knowledge and experience be indispensable to whomsoever may occupy this chair.

The City Government entered upon the discharge of its duties at a time when the community was groaning under the burdens which it was called upon to bear in consequence of the business depression which spread like a pall over almost every interest in this country, and from which there seem, even now, to be few signs of emerging. The call for relief came to us from the people, the tax-payers, for economy in municipal expenditures, the workingmen thronging the corridors of this City Hall for employment, which they had elsewhere sought in vain. Vast projects, involving great expenditures, having been to our predecessors subjects of anxious consideration, some not quite matured, some more than ripe, but not gathered in, perhaps from a sense of the responsibility which they carried, came down to us as an inheritance from former City Governments.

To relieve the tax-payers, whose interests we were sent here to protect, seemed to be the first duty incumbent upon us. An impression was abroad in the community that there was no end to municipal extravagance. To do something toward removing this feeling, and thus in some degree to restore confidence, early engaged the attention of the City

Council. A Joint Special Committee on the Retrenchment of Municipal Expenditures was appointed, and resulted in a large reduction of the salaries of those employed in every department of the city. It had been the usual custom to carry the unexpended balances of appropriations at the close of each financial year into the Sinking Fund established for the liquidation of the city debt. It was deemed advisable, in lieu thereof, to apply these balances toward defraying the expenses of the current year, so much reducing the amount to be raised by taxation.

The reductions made in the different departments, together with the disposition made of the unexpended balances, amounted to such a sum, that while the valuation by the Board of Assessors was largely reduced, the rate of taxation was not materially increased. It appears to me that so long as the city adheres to the policy of borrowing money for the purpose of carrying out improvements, creating debts which must inevitably be paid, together with interest amounting to two or three times the principal, so long will every effort in the direction of economy seem but puny and discouraging. When we consider that about thirty per cent. of the whole tax levy is consumed in the payment of the interest on the gross debt, it appears to me that the policy of making, or supposing we are making, those who reap the benefits of present improvements pay for them in the distant future, when in the mean time several times the amount is frittered away in the payment of interest, is a fallacy. The two millions and a half of money that the people are annually taxed for interest would be sufficient to pay for all the vast improvements set on foot this year before they can possibly be completed.

The subject of an improved system of sewerage has been before the City Council for several years. Under authority of orders dated February 23 and March 1, 1875, the Mayor appointed a commission skilled in engineering and sanitary science, to investigate the present system of sewerage, and to devise a scheme which should provide an effectual system of sewerage sufficient for the future wants of the city. This commission reported in January, 1876, and the plan which was submitted was referred to a Joint Special Committee on Improved Sewerage. This committee reported, June 12, 1876, in favor of adopting the plan of the commission. An appropriation was granted and authority given to make the preliminary surveys. These having been completed, the committee were enabled to present a report concerning them on July 12 of the current year. Their report was adopted, recommending a loan of $3,713,000 for the construction of

an improved system of sewerage, having its outlet at Moon Island. If this plan should prove effectual, — and that it will is the opinion of the best engineering and sanitary talent in the country, — there is no reason why Boston should not, when the sewer is actually in operation, become the cleanest and healthiest of the large cities of the world. Those who have had special charge of this important subject, and who have so ably pressed it upon the attention of the City Council, will enjoy the satisfaction of having been instrumental in conferring upon their city a blessing which will be appreciated, and take rank with the introduction of Cochituate water. Some of the minor portions of the work are already in progress. Mr. Davis, the City Engineer, has been sent to Europe to make a personal inspection of similar works which have been constructed in the principal cities, that he may witness their operation before pushing forward the more important parts of the work at home.

On account of the sewage of the towns of Winchester, Woburn, and Medford flowing into the Mystic river, thereby contaminating the source of supply of the Mystic Water Works, preliminary measures were taken in 1874, and in May, 1875, an act was passed in the Legislature authorizing the City of Boston to construct a sewer in the Mystic Valley. In February, 1876, an order was passed in the City Council providing for its construction. It was found to be inoperative, on account of an error in the act, so that additional legislation was required. This was had in the early part of the session of 1877. The subject came before the City Council last May, and an order was passed authorizing a loan of $200,000 for the construction of the sewer. This work is being carried on under the direction of the Boston Water Board, and it is expected that it will be completed next June.

The subject of public parks, which had engrossed the attention of our predecessors for a number of years, has received patient and careful consideration at the hands of the present City Council. That the laying out of one hundred acres of the Back Bay territory, and preparing it for the purposes of a public park, would remedy a nuisance which, in the opinion of our most eminent medical men, is detrimental to the health of the inhabitants, seemed to be the conclusive argument which determined the minds of the members of this City Council in consenting to its purchase. An order was passed July 12 authorizing the Park Commissioners to make this purchase at a rate not exceeding ten cents per foot, and providing an appropriation of $450,000,

to be raised by a loan. The purchase of the larger portion of this territory was completed on the 29th ult.

The condition of Stony Brook has been a source of grievance to the inhabitants along its borders for many years. It is claimed that the cellars of one hundred and twenty-seven houses are subject to inundation, to the danger of the health of the occupants by the overflow of this stream after every heavy fall of rain or by the melting of snow in winter or early spring. The City Council, after mature deliberation, agreed to a loan of $133,000 for the purpose of abating this nuisance. It is asserted that one hundred and eighty acres of meadow and low lands, covered at times by this overflow, will now be effectually drained and benefited to such an extent that the city will be entitled to receive back for betterments a large portion of the cost of this improvement.

The strenuous exertions of those interested in East Boston, put forth for several years, resulted, on the 19th of July, in the passage of an order by this City Council, providing that on and after January 1, 1878, the tolls on the East Boston ferries be abolished and the said ferries be run free to the public travel. This measure passed the Board of Aldermen by a unanimous vote, and received a large majority in this branch. It seemed remarkable that a measure of so much importance, pressed by its friends with so much vigor, flooding this City Government with petitions and memorials in its favor, should have awakened no considerable opposition in the community until after the passage of the order, until final action had been taken. Its opponents caused it to be brought to the attention of the Supreme Judicial Court, who, on account of legal impediments to the order, issued a mandamus, which was presented at the last meeting of the Council, directing the City of Boston to continue to collect the tolls heretofore established, rendering the order inoperative.

The City Council appropriated in May $350,000 for the erection of suitable buildings for the English High and Latin schools, on land purchased for that purpose in 1872, on Dartmouth and Montgomery streets and Warren avenue. The loan which is thus authorized is to be paid out of the proceeds of a sale at some future time of the present English High and Latin School building on Bedford street, the Bowditch School on South street, the Savage School on Harrison avenue, the Mayhew School on Hawkins street, and the old Franklin school on Washington street. The foundations of this building are nearly completed, and it is thought two years will be consumed in the erection of the superstructure.

The project of widening Commercial street, which has been so long agitated, found favorable action by the City Council at its late meetings, but in an essentially modified form from what was originally proposed. As it passed, provision was made for a loan of $500,000, any excess of cost above said amount to be paid by the corporations and abutters who may be benefited thereby, the street to be eighty feet wide, and the widening to be mainly on the water side.

The subject of the proposed widening of Mercantile Wharf for the purpose of a vegetable market, as well as the plan for abating the nuisance in the Roxbury Canal, not having been fully considered by this City Council, have been properly referred to the next City Government. None of these projects originated with this City Council; most of them had received patient consideration by those who sat here before us. Concerning the utility of most of them there has been but little question, the principal opposition arising from a feeling of reluctance to large expenditures during the prevailing depression in business affairs, and that it would be better to postpone action till the tax-payers are better able to sustain the burden.

In addition to the regular business allotted to the City Council, several investigations have been instituted, among which were the inquiry into the causes of the unfortunate Blackstone-square accident on the 17th of September, the investigation into the Department of Common and Public Grounds, and into the Department of Health, in consequence of those departments incurring expenditures in excess of their appropriations. These inquiries, while they have brought to light no startling developments, will undoubtedly have the effect in the future to induce those who have responsible duties to perform to exercise care in directions where care was never thought necessary before, and warning boards and departments in charge of the public work that appropriations cannot be exceeded with impunity.

The resolution recommended by the Committee on the Investigation into the Department of Common and Public Grounds, and adopted by the City Council, that a proper performance of the city work requires that the superintendent should hire the laborers, etc., might with profit be extended to some other departments, and result in some more sensible way of hiring laborers than has obtained during the past year, thus maintaining discipline in the departments, relieving the members of the Council and raising the morale of the laborer.

The most interesting occasion in which the City Council has participated during the last year was the dedication of

the Army and Navy Monument, erected to the memory of those who lost their lives in the late civil war. To those who witnessed and took part in this pageant, perhaps the most splendid that ever took place in Boston, it will be a day of pleasant memories.

I have given a résumé of the more important matters that have engaged the attention of the City Council during the municipal year. With such projects before us, affecting, as they do, the comfort, the convenience, the health, the interest of our fellow-citizens, requiring patient study, sound judgment and honest convictions, concerning which there are so widely differing shades of opinion, and calling for full discussions; with the ordinary work of carrying on the Government, no wonder that the City Council of 1877 has lingered, laboring at its post of duty till the old year laps upon the new, and the farewells of the departing mingle with the greetings of the year that has come. Our labors are now concluded, and we are to lay down the trust which was confided to us by our fellow-citizens.

It is pleasing to know that this session, with all its spirited debates, its sharp, decided differences of opinion, has not been marred by personalities. In conclusion, I once more return to you my sincere thanks for the honor you conferred upon me in placing me in this chair, and I assure you that I shall always have a friendly greeting for every member of this Council. We are now to part, and we part friends; and our thanks are due to the Giver of every good and perfect gift that we have not been called upon to mourn the loss of any one among us, and, now that we meet here together for the last time, that He has permitted us to assemble with undiminished numbers.

CITY OF BOSTON.

City Document No. 108.

FINAL PROCEEDINGS OF THE BOARD OF ALDERMEN.

IN BOARD OF ALDERMEN, Jan. 5, 1878.

After the business of the Board had been accomplished, Alderman BURNHAM spoke as follows: —

It becomes my pleasant duty to offer the following resolution: —

Resolved, That the thanks of this Board be presented to his Honor the Mayor for the admirable manner in which he has presided over its deliberations during the past year, and for the interest he has manifested in the despatch of the business of the Board, and its members tender to him, on his retirement from office, their cordial and sincere wishes for his future health and happiness.

I desire to add my personal testimony to the urbanity of manner and kindness of heart which, as a member of the Board, have ever been manifested toward me by his Honor during all my official and social intercourse with him, and this sentiment I know all the members will indorse; because, in their official and social relations with the Mayor, they have all received like treatment, which demands a like recognition.

ALDERMAN FITZGERALD. — I desire to say a few words upon the resolution before it is adopted by this Board. As we all know, the present Mayor came into office under very peculiar circumstances, and during the twelve months he has been in office he has had to contend with perhaps more than any Mayor who preceded him. When he was inaugurated it was considered by a great number of people in this city that he had been elected as a party man, and that he came into office under different auspices from those who had preceded him; certainly different from those elected within the last

twelve or fourteen years. His position was a peculiarly trying one.

The candidates for every office in and around City Hall were legion, and the greater number of them thought the Mayor, even if he had not the appointing power, at least had it within himself, and occupied a position from which he was able to dictate to the several committees those who should be elected and rejected for public office. His office has swarmed with applicants for office. Members of the Board know, of course, that the offices in the gift of the Mayor are very few; but for each of these there have been at least from fifty to one hundred candidates, and for positions on the police force the applicants were counted by thousands. The difficulty he had to contend with was this: when there was but one office to fill there were fifty or one hundred needy—and sometimes seedy and unfit candidates, and, when one was appointed, the other forty-nine or ninety-nine went off disgruntled, each forming himself into a crusader to preach down the terrible corruption and partisanship that prevailed in and around City Hall, because he was not appointed to office. There have been thousands of applicants for the position of police officer, which has the pay of a first-class mechanic with not half his independence. Few were appointed; many were disappointed. Each disappointed one had his grievance, and went forth from City Hall to preach to his fellow-citizens what a terrible City Government this was. That was one of the elements he had to contend with.

There was another. I have never spoken of it in my public speeches until now; and, I may say, that from the day of the Mayor's nomination until now I have never had a word with him about his defeat, or the causes of it. I very seldom speak about it, and I am sorry to be obliged to speak of it here. I took particular pains not to allude to it in my public speeches in the campaign, and to keep it out of sight, because I thought that when the time came I would have an opportunity to speak of it from a more official position than a public rostrum. There was one element which the present Mayor had to contend against, and which accounts, more than anything else, for the fact that he was not reëlected Mayor of the city of Boston; and it is no discredit to him at all. He had to contend against a feeling which was expressed in a more manly and honest manner some twenty years ago, but which the intelligence and shrewdness of these individuals would not allow them to speak of publicly to-day. He was opposed by a sentiment which was un-American, unworthy of the city of Boston, and unworthy of its intelligence and the position it holds among the cities of the United

States of America. I felt it during the campaign, and I feel it to-day. I felt that many thought, sir, that this City Hall should be a place where a foreign-born citizen, or many of them, ought to have no part in the government of this city. That was the great underlying sentiment which prevailed at the last election. I am accustomed to speak plainly and boldly what I think. I did not refer to it during the whole campaign; but I choose to refer to it now when I am bidding good-by to the Mayor of the City of Boston, and I do it more in sorrow than anything else.

When I am elected to office in Boston, I want people to feel that it is not because the race from which I sprung is to be conciliated, and I do not want to be put one step farther in advance on that account. I also demand that, because my name bears an unmistakably Celtic origin, it shall not debar me from any office.

Now, sir, the underlying sentiment which prevailed during the whole of the last campaign, and which prevented the re-election of Mr. Prince — and he ought to have been reindorsed — was that this element was growing too large in its proportions in and around City Hall. I have no sympathy with clannishness, whether of race or religion. I have thrown it aside in every position I have occupied, but I have also demanded that those who were associated with me should have the same liberal spirit and idea; and the more intelligent people are, the more I demand it, because the more criminal it is in them.

Now, sir, I have felt — and I want to speak it here, when I am bidding the Mayor good-by — that the chief cause which contributed to the result of the last election was not the measures passed by the City Council, but this proscriptive feeling which prevailed, not only among a certain class of Republicans, but Democrats also. That was the chief cause.

My proof is here, sir: Take this Board of Aldermen; not a measure has been passed here that has not been honestly and conscientiously voted for by some of the gentlemen around me who have been reëlected. It did not debar them from receiving the unanimous nomination of all parties and classes.

And yet, sir, that same cause was urged prominently as being a reason why the head of the executive branch should not receive a reëlection, when the fact is, he did not deem it expedient to set up his dictum against the wishes of the Common Council and the Board of Aldermen. Can that be the real cause? Can it be? It was the ostensible cause; the other I have mentioned was the real cause.

I speak strongly of this matter, because I feel it, and it is

better to speak plainly than to be silent about it. It is better it should be brought to the light of day. I speak the sentiment of a certain class in the community, and they feel it keenly. When another election takes place I hope that feeling will be banished. It is not safe to array one class of citizens against another. I have not done it in my speeches; but I speak of it here because I feel that it is my duty.

The citizens of foreign birth demand that the accident of their coming from abroad shall not debar them from holding office; that because their surnames are Fitzgerald and O'Brien they shall not be debarred taking part in public affairs, or deemed unworthy of public recognition. That is what they ask and demand.

I speak of it because it has a direct bearing upon the defeat of Mr. Prince. I want him to understand that he was defeated, not because he has not carried on the affairs of the City Government as honorably as any man who preceded him, but because of the Know-Nothingism of many Democrats and Republicans of this city. I want him to understand that 23,000 voters of the City of Boston have precisely the same sentiment about the matter that I have, and that he carries with him into private life the respect and confidence of these people, and the Board of Aldermen with whom he has been associated for the last twelve months.

In saying that which I do, I well know the criticism to which I expose myself, but from letters which I have received and from private conversations which I have heard, as also from articles in the public press, cunningly and astutely written, whose meaning was apparent to the dullest comprehension, I know I am right.

In justice to myself, I may state here that the Mayor has never consulted me about any of his public appointments, nor have I obtruded my advice upon him; and I feel satisfied that in what he done, he has always been actuated by worthy and honorable motives.

The resolution was passed unanimously, and, having been transmitted to the Mayor, His Honor appeared, assumed the chair, and responded as follows: —

Gentlemen of the Board of Aldermen, —

I am greatly obliged to you for the kind expressions of regard contained in the resolution, and beg you to accept therefor my most cordial thanks. As we are at the close of the municipal year, and this is the last meeting of the Board,

it seems to me proper that, before we separate, I should call your attention to the condition of municipal affairs, and review, for the information of your constituents, some of the more important work of the year.

The City funded debt on the 1st of January, 1877, amounted to	$45,058,151 58
This debt on the 31st of December, 1877, was	43,354,444 06
The amount of the sinking funds on the 31st of December, 1877, was	15,921,376 44
Showing the net debt to be	$27,433,067 62
As the water income pays the interest on the water debt, we may deduct the amount of this debt from the above balance	12,773,273 98
Making the city debt, exclusive of the water debt,	$14,659,793 64

During the year we have authorized the following loans, which have not been negotiated: —

For Latin and English High Schools	$310,000
Improved Sewerage	3,551,000
Stony Brook Sewerage	133,000
Widening Commercial street	500,000
	$4 494,000

The appropriation for the Latin and High Schools is to be met by the sales of certain school-houses not needed, as hereafter stated, so that the amount of new debt will be about $4,184,000.

RETRENCHMENT OF MUNICIPAL EXPENSES.

It was expected, when we came into office, that the expenses of the Government would be diminished, and you will remember that I called your early attention to the subject in my inaugural remarks. A joint special committee was appointed to investigate the various departments, and report what retrenchment could be made therein without detriment to the public service. They gave to the work a great deal of time and labor. Their report resulted in a reduction of the salaries of city officers of nearly $100,000. The Committee on Appropriations also reported a reduction in the appropriations for the several departments of over $500,000. By these savings and the adoption of the principle of restoring to the Treasury all unexpended appropriations, instead of sweeping them into the sinking funds as

hitherto, we were enabled to reduce the tax levy of 1877 more than half a million of dollars. I think further retrenchment might be made in our municipal expenses without injury to the interests of the city. The costs of government are greater than they should be. We have too many three-headed commissioners to do our work. A great saving might be made by consolidating some of the departments. By direction of the Council, I endeavored to obtain from the Legislature authority to create and abolish commissions, and to consolidate them as the interests of the city might require; but without success. It would seem that the city should best understand its own wants and necessities, and be empowered to adopt such methods of conducting its business, not inconsistent with public policy, as it might deem best for its interests. I think the application to the Legislature will be renewed, and that it will yet see the justice of granting our request.

Betterment Claims.

There have been pending in the courts, for a long time, suits to recover betterment taxes due the city. During the year the Committee on Streets, on the part of this Board, undertook the settlement of these claims, and, after much negotiation, they succeeded in effecting adjustments by which they recovered $279,947.76. This was done with the approbation of the City Solicitor, and reflects much credit on the skilful management of the committee.

Sewers.

During the past year the great measure of the intercepting sewer, which has been before the citizens and the government for many years, has received the earnest attention of the City Council. Appreciating the necessity of providing a system of sewerage which shall secure the health and safety of our people, they determined that there should be no further delay in acting on this matter. As soon, therefore, as the engineers made their report, on the plans submitted by the scientific commission appointed in 1875, the subject was at once considered, the recommendations of the commissioners adopted, and the work commenced. I trust it will be vigorously prosecuted, so that the salutary results expected from it may be attained as soon as possible. Although this great measure will require a large expenditure of money, the necessity of its adoption fully justifies the undertaking. I think I may safely say that our action in this matter is fully

indorsed by the citizens. I may add, before passing from this subject, that the debt to be incurred by the sewer will not press so severely upon our tax-payers as might be supposed. It is computed that the work will require about five years for its completion. The moneys appropriated for its cost will not, therefore, be all required at once, but only as the construction progresses. The debt of the city which matures during this period, amounts to about $800,000, and will be paid from the Sinking Fund, so that the indebtedness of the city at the completion of the sewer will not be greatly augmented, unless it be increased by large expenditures in the future, by the appropriations for this and the Stonybrook sewer and Commercial-street widening. This result will be gratifying to our citizens, and they will be also glad to know that, through the able management of the committee having charge of the work, the land damages have been settled, and the required lands purchased at much less than the estimates. The cost of such sections of the work as have already been contracted for is also much less than was expected, being seventeen per cent. less than the figures of the engineers. The committee have shown great skill in locating the sewer as much as possible in the public streets, thus lessening the land damages, and, by arranging so as to have several routes from which to make a selection, they have had great advantage in negotiating for rights of way through private grounds. More than 9,000 feet of such way — nearly three-fourths of the whole — have been secured without cost. All this has required a vast deal of time, and reflects much credit upon the committee. If we should have the same success in the rest of the work, and it shall be found, in an age which has witnessed the construction of the Hoosac Tunnel and the Danvers Hospital, that an enterprise to cost millions has been completed for less than the original estimates, with no contractors besieging the City Treasury with long bills of extras, this committee, and their successors in office, will require no monument to perpetuate their fame and memory.

COMMERCIAL-STREET WIDENING.

The widening of Commercial street is another important measure which has occupied your attention. I need not refer to the advantages of this improvement to our mercantile interests. They are generally known and recognized. The question was not whether the widening should be done, but whether it should be done now. The great expense of the measure created differences of opinion as to present action

therein, but the wise arrangement by which all cost beyond the amount appropriated for the purpose should be borne by abutters and others benefited by the improvement, will justify, I think, your action in the matter, and satisfy generally our citizens. The subject demanded and has received your careful attention, and has occupied a great deal of your time.

Parks.

You have been called to consider the subject of parks. Our citizens have felt for some years that Boston should possess a park for the accommodation of its increasing population. It is generally conceded that there should be in vicinity of all large cities open spaces of territory, where those who are compelled to live in crowded streets and alleys can resort for pure air and recreation. Parks are not wanted merely because they adorn and make cities attractive. The chief argument in their favor is, that they conduce to the health and comfort of the people. The sanitary outweighs the æsthetic argument. The desire of our citizens for a park first found public expression in 1869, when a large number of our heavy tax-payers petitioned the City Government to take initiatory action for its accomplishment.

The subject soon commanded general attention, and much enthusiasm was excited in its behalf. It is worthy of note that the warmest friends of the park scheme were not those most benefited by it, — the citizens who were without the means and opportunity to visit the country in the hot summer months. The wealthy tax-payers — those who would be required to pay the cost of parks — were the most earnest advocates for the measure. The petitioners represented nearly $10,000,000 of taxable property. They felt that parks were desirable not only for sanitary benefits, but because they would adorn the city, make it attractive to strangers, and advance its commercial importance and prosperity.

This park feeling led to the appointment of a Board of Park Commissioners, who devised a series of parks, located in different sections of the city, connected by park roads, thus giving park accommodations to all our citizens. This scheme has been generally approved, and it is apparent that its adoption, with some modifications, would have received the approbation of all classes, if the great depression in business, which occurred soon after the report of the commissioners, had not alarmed our citizens, and led them to believe that it would be best to defer action in the premises until our industries should revive. There were, however,

those whose opinions were entitled to respect, who thought that the present time of depressed prices and unemployed labor was the best time for the commencement of the enterprise.

I drew your attention to the subject in my inaugural remarks, and presented both sides of the argument. I also advised you of the necessity of immediate action for the improvement of the sanitary condition of the Back-Bay territory. In so doing I felt that the plan of the commissioners, in respect to the Back-Bay flats, or some portion of it, would be adopted. The subject has been carefully considered by the City Council in all its relations, and it is evident that, while most of them favored some portions of the park scheme, they did not deem it prudent or judicious to increase at this time the public debt by the expenditure which its adoption would require. It was evident from the debates on the report of the Committee on Parks, who reccommended the immediate inception of the scheme, that its opponents did not object to parks *per se*, but because they thought it unwise to commence the work at this time.

Your conclusions in the matter reflected, without doubt, the opinions of your constituents. The action of the Council in the purchase of the flats on the Back Bay for the improvement of the sanitary condition of that section of the city — indeed, I might say of the whole city, since every portion of it has felt the influence of the Back-Bay sewer nuisance — was most wise, and I feel assured it receives the full approbation of our citizens.

You have purchased 106 acres of land at half its real value, even in these times of depressed prices. This acquisition will enable us to abate a nuisance which was depressing the value of a vast amount of taxable property, and fast making Boston a most unhealthy city. When the land shall be filled and improved, it will constitute a park, which, with the Common, the Public Garden, and the squares of Commonwealth avenue, will contain a sufficient area for the use and enjoyment of such of our citizens who live in that part of the city known as the city proper, for a long time. I trust that your successors in office will recognize the wisdom of improving at once this territory.

The sewers required to conduct the waters of Muddy river and Stony Brook should be built as soon as possible, in compliance with the recommendation of the Park Commissioners in their sixth report. The act of the Legislature passed in 1872 empowers the city to unite with the town of Brookline and divert the waters of Muddy river so as to carry them in a more direct line to Charles river. The plan which accom-

panies the commissioners' report, proposes to make such diversion at the point where the river touches Brookline avenue; but I hope it will be found more judicious to tap these waters at or near Longwood station, on the Brookline Railroad, so that the lands between this road and Brookline avenue may be drained and made valuable for building sites. The work of filling the land purchased should also be commenced at once. We have annually about 150,000 loads of ashes and street sweepings, for which a dumping-ground is needed. Here we have one.

I am glad that, by your order of Monday, you have directed this dirt to be placed there. If a small annual appropriation were made for Back-Bay improvements, we should not only get the flats soon covered, so as to be no longer offensive, but ready for laying out and planting, since it is probable that a large portion of this area will be formed into a lake, to be supplied from the waters of Charles river. It would be the truest economy to make the park as soon as possible, for it has been demonstrated, by the experience of other cities, that parks have so greatly raised the value of surrounding property as to repay their cost, in a short time, by the revenue derived from increased taxation. In the neighborhood of this park the houses of our wealthy citizens will be found. As soon as it is filled and made attractive, all sanitary apprehensions will dissipate, building will commence at once, and costly structures, like those which make Beacon street and Commonwealth avenue the finest streets of any city in this country, will be erected, which will annually yield, like those in other portions of the Back Bay, hundreds of thousands of dollars of taxes to the treasury.

I am aware that the plan of making work to relieve the wants of unemployed laborers is not generally approved, but there are so many of them at this time who, suffering for the necessaries of life, are willing to work at low wages, that I think our tax-payers would regard their employment, during the winter, in filling the park, as a measure not only of economy, but humanity.

Ferries.

You have been called to consider and act upon the subject of free ferries. This matter has been before the Government for many years. By the provisions of the act of 1869 the city was authorized to purchase the property of the East Boston Ferry Company, and, after its purchase, to free or levy tolls upon them as it saw fit. The purchase was made and rates of ferriage established. Soon, however, the

residents of East Boston agitated the question of relieving the tolls and making the ferries free.

In the newspapers, at public meetings, and in various ways, the matter was discussed, under the expectation of creating a public sentiment which should demand the accomplishment of the desired object. It was complained that the tolls were a serious charge upon the prosperity of East Boston, that its business suffered, that commerce was driven from its wharves, notwithstanding their ample accommodations and deep water, and that real estate was depressed. Application was finally made to the City Government for relief, and in 1871 the Board of Aldermen, then comprising some of our ablest business men, by unanimous vote, passed an order establishing free ferries, but it failed to receive the confirmation of the Common Council by a single vote. This defeat of a measure of so much interest to the citizens of that section did not discourage them. The matter was kept constantly before the people, and every means adopted to create for it friends.

Early in the present year it was brought again to the attention of the City Council by a petition signed by nearly 8,000 citizens, embracing the leading men of the community, the prominent and representative members of every vocation and profession. His Excellency the Governor signed it, as did twenty bank presidents, and hundreds of merchants, importers, traders, jobbers, bankers, manufacturers, mechanics, express companies, lawyers, and business men of every kind and class. The petitioners represented nearly $100,000,000 of taxable property.

The newspapers, for the most part, either favored the project or made no pronounced objection against it. The petition was referred to the Joint Standing Committee on East Boston Ferries, comprising five members of the City Council and three Aldermen, who gave the subject careful and exhaustive consideration.

The facts in the case would be imperfectly stated if it was not observed that the committee gave public notice of their hearings on the petition by advertisement in the newspapers, and requested all those who objected to the prayer of the petitioners to appear and be heard.

Notwithstanding adjournment after adjournment was had to enable remonstrants to appear, none appeared at any meeting, either in person or by proxy. It is a surprising fact, in view of subsequent occurrences, that not even a remonstrance in writing was made during all the time the matter was before the City Council.

The committee, by a unanimous report, setting forth with

great and convincing force the merits of the measure, recommended the abolition of the tolls. No opposition to the report was made in this Board. It received their full approval, and the order recommended therein was passed by unanimous vote. In the Common Council the measure received some opposition, which led to its discussion.

It seems strange that, at this stage of the proceeding, none of the citizens who afterwards remonstrated against the order did not appear and encourage its opponents in the Council. It seems strange that the papers, which claim to reflect public opinion, did not sound the alarm and admonish the City Government of the wrong that was being perpetrated. But, as has been observed, no remonstrants were at this time heard; no warning came from the press. The order was passed by a large vote. It needed only the approving signature of the Mayor — as was supposed by its friends — to become a law.

Whilst considering the question of approval, for the first time since the matter came before the Government, remonstrants appeared. I suspended action in the premises until I could hear their reasons of objection, and examine the questions of law which had been raised touching the power of the city to pass the order.

It is proper to state that petitions requesting me to interpose my veto were signed by large numbers of our best and well-known citizens, some of whom had previously favored the measure. Other petitions in favor of freeing the ferries were also filed, representing with those previously made, more than 15,000 signers.

In view of the action of the citizens upon the subject of the free ferries, since their purchase, as shown in their apparent approval of the doings of the City Council in 1871, — in their refusal to interpose objection when the petition was first made to the present Council, when it came before the committee, when report thereon was made here, when the order was passed here, when the matter went to the other branch of the Council, and as shown by the large number of tax-paying citizens who endorsed the petition, — I felt that objection on my part would be improper, as indicating that I felt more confidence in the correctness of my own opinion than in those of many thousands of our most respected and intelligent citizens.

Not viewing the question as one of principle, but of policy and expediency merely, I thought that the will of the people, so emphatically and unmistakably expressed, should be obeyed.

The point of law was raised whether the city had power,

under the act of 1869, to pass the order. The City Solicitor was of opinion that no such power existed. My construction of the act led me to a different conclusion; but I thought if the order were approved by me, and the Court should afterwards find that the City Council had exceeded their powers, the wrong would be easily corrected. Under the circumstances, I gave the measure my approval.

As you are aware, the opponents of free ferries appealed to the judges; and they have held that the doings of the city in the premises were illegal and void. It must be presumed that this decision is correct, and it is a matter of congratulation that the judgment of the Supreme Court has put at rest this vexatious and disturbing question.

Your successors are not again to have this subject of discord before them. Candor compels me to admit that, notwithstanding the efforts which have been made to make the City Government believe that our citizens desire the ferries to be free, the unmistakable expression of the opinion of the voters and tax-payers of Boston, shown in the recent municipal election, is conclusive evidence to the contrary.

It may be further observed that the votes of the citizens of East Boston might justify the inference that their interest in this measure has been greatly exaggerated or largely modified, and that they are satisfied it is unreasonable to ask the tax-payers of other portions of the city to contribute to the cost of free ferries for the benefit of their own section.

If I am right in my conclusions that the decision of the Court will relieve henceforth the City Government from further consideration of this subject, my refusal to veto the measure will prove a blessing in disguise, although I am not entitled to claim any merit for my action.

HIGH SCHOOLS.

You have made appropriation for the building of school-houses for the accommodation of the Latin and High schools on the lot of land on Warren avenue, purchased for the purpose in 1872. These school-houses have been greatly needed for a long time, but the large sum required to build them led to the postponement of the work. We found that the interests of these schools would not permit longer delay, and the construction of the building has been commenced. It is a cause of congratulation that their cost, which will be about $450,000, will not increase the tax levy, nor permanently augment the city debt, for it is provided in the order for the erection of these school-houses, that the proceeds of the sales of the Bedford-street, South-street, Harrison-avenue, and

Chardon-street school lots, which will not be needed, are to be appropriated to the payment of the loans required for the work.

LICENSE COMMISSIONERS.

It is gratifying to know that the license laws have been enforced to the entire satisfaction, as I believe, of most of our citizens. As is well known, the enforcement of the laws regulating the sale of intoxicating liquors has, for obvious reasons, been most difficult. The License Commissioners of previous years had only partial success in the discharge of their onerous duties, but the skilful management and vigorous action of the present Board have been productive of the happiest results. They have succeeded in arresting almost completely the sale of intoxicating drink on the Sabbath, and prevented to a very large extent unlicensed sales on other days. Their report will show that by their wise management they have reduced the expenses of the commission more than one-third, and increased the revenue from licenses above that of last year more than $60,000.

WATER.

The work of bringing water from Sudbury river, although it has been vigorously prosecuted, will require another year for its completion. The conduit is practically completed, and can be used in case of need for filling Lake Cochituate, or for a direct supply to the city, should accident happen to the old conduit. The storeage basins at Framingham are well advanced. A large part of the work of the Mystic-valley sewer has been completed. The net cost of the water works to Jan. 1, 1878, is $16,356,282.04. The amount of the bonded water debt on the 31st of December, 1877, was $12,773,273.98. The total receipts for water rents during 1877 was $1,099,625.27. After paying current expenses and the interest on the debt, including interest on the difference between the bonded debt and the net cost of the water works, as required by law, there was about $54,131 which were paid into the sinking fund for the extinguishment of the debt. It is a most gratifying fact that our water income more than pays the interest on our water debt.

CHELSEA BRIDGE.

An attempt was made by the city of Chelsea to obtain from the Legislature of last year an act requiring the City of

Boston to build and maintain more than its just proportion of Chelsea Bridge at the cost of more than $70,000. At the same time the savings banks of the State combined to obtain a reduction of the taxes assessed upon their assets, and exemption also from all tax on the United States bonds held by them on deposit. This would have caused an annual loss to the city of $260,000 for its share of the former and $50,000 for its share of the latter. I protested against this injustice, and we succeeded, through the earnest and vigorous efforts of the Committee on Legislative Matters, in defeating all these measures. I trust that we have made our rights in the premises so apparent that no new attempts will hereafter be made to disturb them.

Public Institutions.

Dnring the year the female poor have been removed from Deer Island to Austin Farm, and the neglected children to the Marcella-street Home, thus separating the unfortunate poor from the vicious. The propriety of this measure has long been recognized by the Directors of Public Institutions, and we may rejoice that it has been at last accomplished. Deer Island is now occupied by the houses of Industry and Reformation. During the year I have made many visits to these institutions, and have observed with great satisfaction and pleasure the excellent system of management under the able Board of Directors. In my judgement, no department of the Government is better conducted. The organizing capacity and administrative ability of the President of the Board have inaugurated many important improvements which will be productive of most salutary results, and enable these reformatory institutions to accomplish to a gratifying extent the objects for which they were established. The proposal to teach the children of the Reform School trades, so that they may be able, when discharged from the island, to obtain honest means of support, is worthy of all commendation, and alike indicates the benevolence and wisdom of the directors. The formation of a military corps among the boys is further evidence of good management. Military exercises have had a wholesome influence upon the discipline and spirits of the boys, caused a marked improvement in their conduct, and enabled, without doubt, the officers of the institution to govern them with greater ease and facility. A considerable part of the printing and other work of the city might be done at the island, if prejudice does not impede the efforts of the directors, so that in time the institution might become, to a large extent, self-supporting. I trust

your successors will coöperate in the accomplishment of a result so desirable.

Gas.

There has been for a long time a growing opinion in the public mind that we pay more for the gas actually consumed by the city than we should. I have no doubt that there is reason for this belief. The annual expenses of the Lamp Department are nearly $500,000. I think a great saving could be made here, and early in the year gave my attention to the subject. The average annual cost to the city of every gas lamp within its limits is over $50, and that of each one within the city proper is over $31. We have nearly 10,000 lamps. I find that responsible parties were willing to lay the pipes and furnish the same amount of gas, with equal illuminating power, at $25 per lamp, and, probably, much less. The cost to the city of New York is only $19.50 per lamp. A great saving might also be made by the adoption of the system of instantaneously lighting and extinguishing the gas which has been successfully introduced in Providence. The authorities of that city exhibited to me the operation of the system, and satisfied me of its practicability. It was my hope that we might have inaugurated reforms and changes during the year which would have largely diminished the costs of this department, but circumstances beyond my power to control have prevented a consummation so devoutly to be wished. I trust the needed reforms are only delayed, and that the agitation of the subject will result in their future accomplishment.

Industrial Schools.

I had hoped also that the City Council would have recognized the wisdom of establishing industrial or developing schools, where pupils could be thoroughly taught, in the shortest possible time, the trade or art which they purpose to pursue for a living. We teach in our common school everything else except this. The establishment of industrial schools would enable our youth to ascertain the natural taste and inclination of their minds as to mechanical pursuits, and thus prepare themselves to begin life with the practical knowledge which would enable them to follow the vocation best fitted for them, instead of following the old and slow method of the apprentice system. The report of the committee charged with the consideration of this subject, with the order recommending the establishment of one of these schools, did not meet the approbation of this Board; but I

cannot but feel that the wisdom of the measure will soon be appreciated; that it has been postponed merely, and not abandoned. Boston has always led the van in the cause of educational progress, and I trust she will not be found apathetic in this important matter.

STONY BROOK, MUDDY RIVER, AND ROXBURY CANAL.

These nuisances have long been the subject of complaint. The attention of the City Government has been repeatedly called to them. The Board of Health has again and again demanded their abatement. The sewage which has passed through these conduits has greatly affected the comfort and health of our citizens, and various schemes have been proposed for relief. Hitherto nothing has been accomplished. The recent action of the Council, in the passage of the order recommended by the Joint Special Committee on the Improvement of Stony Brook, will effect what is necessary to remedy the mischief from this source. The filling up of the Back-Bay flats purchased by the city, and the construction of the sewer, as suggested by the Park Commissioners, will remedy the Muddy river nuisance. I regret that this sanitary work was not completed by filling the Roxbury Canal. This project has received a great deal of attention from the Council during the year, and it is evident that they would have adopted the proper measures of remedy, if there had been time to examine the questions of law which have arisen as to the rights of the city in the premises. The subject has been referred to the next City Government, and will, without doubt, receive its early attention and action. I congratulate the citizens that the offensive odors and exhalations from these polluted waters are soon to be relieved.

COLUMBUS-AVENUE PAVEMENT.

The city has been experimenting for years to find the kind of pavements for our streets which shall best answer all requirements. We have had wood, iron, cobble-stone, the Belgian, and macadamized pavement. My attention was early drawn to the asphalt pavement as possessing, upon the whole, more of the desired advantages than any other. I visited New York and Washington with some of the Aldermen to examine the specimens to be found there of this kind of pavement. The freedom of the asphalt concrete from noise and dust, its imperviousness to water and frost, and its apparent durability, are great recommendations. I drew

the attention of the Council to it, and advised its trial. You have laid it down in Columbus avenue. I am told that it gives much satisfaction to those who live in that vicinity, and, as the experienced and able Superintendent of Streets inclines to the belief (if I am not misinformed) that this pavement is likely to prove superior, in the respects I have mentioned, to all others, I feel confident that we have solved the problem which has hitherto occupied so much time and been the subject of so much experiment. The asphalt pavement, if properly laid, will be found the best for the level streets and avenues of the Back-Bay territory, although the Belgian blocks may perhaps be better for the commercial streets which are used by heavily loaded wagons and drays. I may say in this connection that, during the year, we have macadamized and put in order for travel Chester park to Beacon street, Commonwealth avenue to Chester park, and authorized the completion of Huntington avenue.

Small-pox Hospital.

During the year a site for the small-pox hospital has been purchased and the hospital built. This is a matter of congratulation. Great difficulty has hitherto been experienced in obtaining a lot of land for this purpose. For obvious reasons objection was everywhere made to the neighborhood of this institution. After much inquiry we found a location to which no opposition was made. The hospital is a model building of its kind, and will accommodate as many patients as will be likely to seek admission to it, even should the disease become epidemic.

Horse Railroads.

You have given a good deal of time to the horse-railroad companies. They have filed an exceptionally large number of petitions for locations, and the hearings thereon have been protracted. In some cases where there have been conflicting applications by different roads much time and thought have been required for their adjustment. In matters where the public have rights, individuals rights, and railroad corporations rights, the exercise of the powers delegated to the Board of Alderman to locate street railways is oftentimes most embarrassing and difficult. All will not be satisfied, whatever is done; but I think you can justly feel that in most of the cases where you have been required to adjudicate these questions your conclusions have been, upon the whole, satisfactory and correct.

ARMY AND NAVY MONUMENT.

The year has witnessed the completion of the monument erected in memory of the men of the army and navy who died in the war for the Union. The event was appropriately celebrated. It drew to the city large numbers of distinguished strangers from all parts of the country, who have expressed themselves much gratified by the hospitality received from our citizens. Occasions like those of the 17th of June, 1875, and September 17, 1877, are of infinite value in the restoration of that amity and good-will between the different sections of the country, without which there can be no solid or lasting union. Viewed in these relations, I think our tax-payers will not regard the cost of the celebration as improper or excessive.

It will appear from the sketch I have given that the duties of the City Council during the year have been arduous. I am told, by those familiar with the city business, that we have been called to perform very much more work in amount and importance than any previous administration. I believe it has been well done, and that the City Government of 1877 can review its record with satisfaction and pride.

In my inaugural address I took occasion to say "that it was our duty to exercise the powers delegated to us for the welfare and prosperity of all the citizens, without regard to party differences or party interests." I now place upon the record the assertion that none of the many important measures upon which you have been called to act have been considered otherwise than upon their true merits. There does not appear in any of your discussions and votes the slightest evidence that you have been actuated by partisan or improper motives, and it would be impossible to ascertain from anything said or done here what were the politics of the Board.

I believe, and I have no doubt your constituents believe, that all your official acts have been honestly performed, and with the sole design of promoting the best interests of the city. It is true that during the canvass preceding the late municipal election grave complaints were made against the administration for shortcomings and malfeasance; but, if the press be a just exponent of public opinion, no dissatisfaction was felt by the citizens with you, for none of the measures to which I have alluded, and on which you have acted, are assailed or opposed.

It may, therefore, be fairly inferred that your official conduct is approved. The complaints were against me alone. When the passions and animosities excited by the late contest shall have subsided, I trust my actions will be fairly exam-

ined, and without prejudice. If, then, the verdict be against me, I shall find such consolation as I can in the consciousness of good intentions.

My successor may bring to the discharge of his official duties more ability than I possess, but he will not be actuated by a greater solicitude for the interests of the city, nor a higher regard for its welfare and honor. I invoke for him a larger charity and a fairer trial at the bar of public opinion than have been accorded to me.

I cannot conclude without expressing my great obligations to that able and accomplished officer, the City Clerk, for the valuable aid he has rendered me, and to the efficient City Messenger and his courteous assistants for their many kind attentions. My thanks are also due for the assistance I have received in the discharge of my duties from the heads of the several departments and other officers, and especially from the Chief of Police.

And now the parting word must be said. It was the just observation of Dr. Johnson that we never do anything which we have been accustomed to do, with the consciousness that we are doing it for the last time, without a certain feeling of sadness. I confess to something of this sentiment.

When we separate to-day, we shall never again meet in the same official relations. For the last time we occupy together these seats. I have noticed with pleasure the uniform courtesy and considerate regard for the rights of each other which you have observed at all your meetings. I know of nothing upon the record of a personal character which any of you could wish to obliterate. May the same kindly feelings long continue after we have gone hence, and prosperity and happiness attend you all.

At the conclusion of the Mayor's Address, Alderman Fitzgerald submitted the following resolve: —

Resolved, That the thanks of this Board are due to John T. Clark, Esq., the Chairman, for his impartiality and courtesy while presiding at its meetings, and for the valuable aid and assistance which he has at all times rendered to his associates in the committee-room and at the public meetings of the Board.

Alderman Fitzgerald. — Perhaps it would be in place for me to say a few words on this resolve. I perhaps more than any other member of this Board have come in contact

with the alderman opposite in our public debates. He and I have differed more with each other in our arguments than perhaps any other members of this Board. The resolution which I have offered represents the feelings which I have towards him now that we are about to part and not to meet again perhaps in an official capacity such as we occupy to-day. I will say this, and all the members of the Board will bear me out in it, that no matter how warmly he may debate questions with members of this Board, no matter how warmly he and other members of this Board may apparently use words against each other, whatever has been said, so far as he is concerned, has been to the question and not to the individual who opposed him; and whatever he has said has been forgotten in the social relations that should exist between the members of this Board. That one peculiarity which I have noticed in him, is a rare virtue in public men. They sometimes cannot distinguish between your position to themselves personally, and your position to the measures they advocate. He is a different kind of a man from that. There is another quality that I want to bear testimony to here. He has differed from me on many questions; but I want to say that he has presented his views fearlessly. No member of this board has come forward to share his responsibility for his acts. I have known him before I came into this Board, for I was acquainted with him on an important committee while I was a member of the other branch; and, in view of what has lately taken place, I want to bear cheerful tribute to his manliness of character. When people go elsewhere and see the members of the Board of Aldermen of other cities, they will come back and find that Alderman John T. Clark is something more than the mere individual whom you see occupying such positions elsewhere; and the City of Boston will be fortunate if she can have men of his stamp and kind, who not only are not afraid to speak their minds upon public questions, but are not afraid of the consequences to themselves. I want to bear this tribute to him, now that I am leaving this Board of Aldermen, and he is leaving it; for I feel that the resolve that I have offered is but the reflection of the sentiments of every member of this Board.

The resolution was passed unanimously, and Alderman CLARK having taken the chair, addressed the Board as follows: —

Gentlemen of the Board of Aldermen: —

For the sentiments expressed in the resolution which you have been pleased to adopt, I tender my sincere and heart-felt thanks. I assure you that I fully appreciate the kindly sentiments which prompt the act.

It has been my privilege to serve the city as an alderman for six successive years, during which time I have participated in the consideration of some of the most important questions which have been brought before any City Council since Boston became a city. Questions which have affected the future growth and prosperity of the city, as well as the safety and comfort of the inhabitants, have be enacted upon. Many of them were vehemently opposed in the outset, and were only carried by strenuous efforts; most of them have already vindicated themselves, while some, which have been delayed year after year, until the present, bid fair to shortly prove their utility. I came into the Board a believer in the future of Boston, and I have always been a consistent advocate of every work which would tend to augment the commercial importance of the city; and, when I review the transactions of the past six years, I can almost trace an improvement in our business relations, coextensive with our schemes of public improvement. I therefore leave this Board more than ever convinced that every dollar judiciously expended in the improvement and ornamentation of the city is a wise investment in a business point of view, if nothing else is taken into consideration.

The property of Boston must depend upon its commerce and manufactures, and our facilities in these respects are unlimitable. With our magnificent harbor, free from ice the year round, with depth of water sufficient to float the largest vessels; with our present and anticipated connections with the great grain depots of the West, and cotton-fields of the South, and our admirable facilities for handling all kinds of merchandise, there is no reason why Boston should not be the greatest commercial city of the Atlantic coast. And I therefore believe that, as the individual prosperity of every citizen depends upon the prosperity of the city, it is the duty of the City Council, as conservators of the public welfare, to improve our business facilities by every means in its power.

One of the essentials of a commercial city are good thoroughfares. In this respect much has been done during the past six years. Having served as chairman of the Committee on Laying out and Widening Streets during that period, I am familiar with the work which has been done.

In 1872 the work of levelling Fort Hill had just been finished; since then streets have been laid out and built, and the territory covered with handsome business structures.

The great fire of 1872 afforded an excellent opportunity for improving the streets in one of the principal business parts of the city. To you who were familiar with that part of the city before the fire it is needless to point out what has been done in this respect. I think that all will admit the improvement. There is now hardly a vacant lot remaining on what was the burnt district.

The damages on account of laying out and widening streets since 1872 amounts to $9,107,611.97, and are settled within a few thousand dollars. The betterments assessed on the same account amount to $1,965,692.34, and five-sixths of the amount has been paid.

Within six years great improvements have been made on the Back-Bay territory; West Chester park, Commonwealth avenue, and Huntingdon avenue to West Chester park have been completed, and opened to public travel. The parks on Commonwealth avenue have been completed from Clarendon street to West Chester park. All who remember this part of the city as a valueless marsh, or, later, an unsightly gravel heap, cannot but feel grateful for the wise foresight which planned and directed the improvement.

One of the most important functions of the City Council is the preservation of the public health, not only on account of the welfare of the permanent residents of the city, but that it may be made safe and inviting to those who visit us from abroad. Much has been done within six years to improve the sanitary condition of the city.

The Board of Health was established in 1872, immediately after the small-pox excitement. The Board has been indefatigable in searching out and eradicating sources of disease, and no epidemic of disease has occurred since its establishment. In such matters, of course, absolute safety cannot be assured, but, as long as we have a Board as active and vigilant as the present one watching over our interests, we can feel tolerably secure.

By providing for the construction of the improved system of sewerage the present Board of Aldermen have shown how fully they appreciate the importance of improving the sanitary condition of the city.

Another indispensable necessity for a healthful city is an ample supply of pure water. This has been provided for by the additional supply obtained from Sudbury river. The city had entirely outgrown the facilities which were ample when the Cochituate water was first introduced. There was

scarcely enough to supply the necessary quantity for household purposes, and the wants of manufacturers could not be considered.

The belief that Boston had reached its maximum of growth, — a belief that has obstructed many important public improvements, — and that, therefore, it would be unwise to incur the expense of an additional supply, prevented anything being done until the great fire of 1872 proved, with startling truth, the inadequacy of the existing works and the necessity of increasing the supply.

The construction of the new works led the way to the establishment of the present Water Board, whose excellent management of the department is well known to all.

The establishment of the Board of Fire Commissioners was also a result of the fire of 1872, and I believe that it is conceded that there is no better fire department in the world than ours.

It has been peculiarly gratifying to me to witness the gradual expansion of the territorial limits of the city, as it indicated, in a degree, the expansion of our business interests; for, as district after district was given up to the demands of trade, the population was driven into the suburbs until they became entirely a part of Boston in all but name. It was perfectly natural that the residents of the adjoining towns should desire a voice in the government of the city with whose business interests they were identified; hence annexation was an assured fact.

Since I have been an alderman, Charlestown, containing 23,447,220 square feet of territory, West Roxbury, containing 6,627½ acres of territory, and Brighton, containing 2,370 acres of territory, have been annexed. At the time of annexation the valuation of the annexed territory was $71,639,251.

I have hastily touched upon some of the most important subjects which have been acted upon since my connection with the City Government. Most of them met with considerable opposition; all of them have, I believe, proved their necessity. It will be so with the legislation of this Board. Take, for instance, the widening of Commercial street, which is simply the continuation of the Atlantic-avenue improvement. When completed it will be a matter of wonder that it was delayed so long. I remember how strenuously the extension of Washington street was opposed. Who is there now who would wish to restore it to its original condition? Within a week I have learned that arrangements have been made by which Battery and Commercial wharves

will be the deep-water terminus of the Hoosac Tunnel lines of railroad.

The past year has been essentially one of action. You have been called upon to consider many questions of great importance to the municipality. Schemes of public improvement which have laid dormant for years, or the execution of which have been postponed year after year by preceding city governments, have received your careful consideration. Projects which have hitherto appeared to be impracticable have, in the light of your practical knowledge, become possibilities. Future years will prove the wisdom and far-sightedness of your legislation.

All questions of public improvement have been considered by you in the broadest and most liberal spirit. The sanitary welfare of the city has received your special attention. To you will belong the credit of inaugurating the system of public parks, which will, undoubtedly, in the future be carried out to the full extent recommended by the Park Commissioners. Boston cannot afford to neglect the present opportunities for securing breathing-places for its inhabitants.

The construction of the improved system of sewerage has been commenced under your auspices, and, although the subject had been thoroughly discussed from all points of view, before your accession to office, it received your careful consideration before the system was finally adopted.

The improvement of Stony brook and Roxbury canal was greatly demanded, not only as measures of relief to those immediately affected by the unsanitary condition of the streams, but, also, for the protection of the public health. Both measures received your approval.

The educational interests of the community have not suffered in your hands. In addition to providing liberally for the maintenance of our public schools, you have made appropriations for erecting a new High and Latin school-house, estimated to cost $350,000, a grammar school-house at Washington Village, estimated to cost between $70,000 and $80,000, and a primary school-house on Western street, which will cost $40,000.

The new High-school building, when completed, will supply a much-needed want, and will be a great addition to the architectural appearance of the city.

During the year two grammar school-houses have been completed, at a cost of $90,000.

Dover-street bridge was completed and opened for public travel early in the year. The total cost of rebuilding this bridge was $88,744.16.

Chelsea bridge and Neponset bridge have been entirely rebuilt during the year, at a cost of about $148,000.

Your action upon the question of free ferries was an act of justice to the residents of Boston, as well as a proof of your desire to remove a burden from the commercial interests of the city. The tolls are a direct tax upon our foreign commerce and restrict the full development of the unequalled commercial facilities of this city. I believe that at no distant day the people will awake to the importance of the subject, and that suitable legislation will remove this restrictive tax; for upon the development and encouragement of our foreign commerce depends, in a great measure, the future prosperity of the city. The importance of this subject will be understood when it is known that twenty-one of the largest ocean steamers arrived and sailed from this port in the month of December.

One of the most interesting events of the year was the dedication of the Army and Navy Monument. The completion of this tribute to our citizen-soldiers was made the occasion of a demonstration which will long be remembered in the annals of the city. The committee to whom we are indebted for the success of the occasion are entitled to great credit for the manner in which they performed their arduous duties.

There have been material differences of opinion in regard to many of the questions which have come before this Board. The debates upon many subjects have been earnest and animated, and no question has escaped a careful scrutiny into its merits. I believe that, in passing upon the various matters which have come before us, the action of each member has been regulated by the purest motives and the most sincere desire to do what was best for the community of which we form a part; and I believe that, when judged by its results, the legislation of this Board will redound to its honor and credit.

I believe that I speak the sentiments of every member of the Board when I testify to the faithfulness and efficiency of our excellent City Clerk, our attentive and courteous City Messenger, and the several heads of departments. For myself, after having been brought into almost daily contact with these gentlemen for six years, I cannot find words strong enough to express my esteem for them as men, and my appreciation of their valuable services, and I desire thus publicly to thank them all for the uniform courtesy which I have ever experienced from them. The city of Boston may congratulate itself upon having in its service gentlemen of such sterling worth and integrity.

And in this connection I desire to say that since my connection with the City Government I have never seen any indications of an attempt either on the part of the members of City Council or the officers of the city, to use their offices for their personal advantages. I have seen no vestiges of the "rings" which have disgraced other cities, and, notwithstanding the imputations of those, who, through ignorance, if not from worse motives, measure weakness by opportunity, I believe we have, and have had, a thoroughly honest and upright administration of our municipal affairs.

And, gentlemen, I trust this state of things will always continue. The fair fame of Boston came to us as a priceless heritage from our predecessors. May it ever be preserved untarnished by our successors.

Gentlemen, we meet for the last time as members of the Board of Aldermen for 1877. The experiences of the year have afforded us abundant opportunities for learning each other's worth. I trust that we part with sentiments of profound respect and esteem for one another, and that we shall carry with us into private life pleasant memories of onr experience here.

At the conclusion of the following address, Alderman O'BRIEN offered the following: —

Ordered, That the addresses of His Honor the Mayor and of the Chairman of this Board, together with the final proceedings of this meeting, be printed for the use of the City Government.

Passed.

On motion of Alderman VILES, the Board adjourned *sine die*.

Attest:

S. F. McCLEARY,
City Clerk.

SECOND ANNUAL

Bulletin of the Publications

ISSUED BY THE

CITY OF BOSTON.

ALSO COMPRISING PUBLICATIONS RECEIVED BY THE CITY.

December, 1877.

BOSTON:
ROCKWELL AND CHURCHILL, CITY PRINTERS
No. 39 ARCH STREET.
1877.

[*From the Revised Ordinances, edition of* 1876, *pages* 624, 966.]

PRINTING.

Section 2. — The Joint Standing Committee of the City Council on Printing shall, except when otherwise specially ordered by the City Council, designate the number of public documents, books or pamphlets, the printing of which for the use of the City Council has been, or may be, from time to time, duly authorized. And the City Messenger shall, subject to such rules and regulations as the said committee may adopt, have the care, custody, and distribution of said documents, books, and pamphlets: *provided*, that said committee may authorize the sale at an approximate cost price, of any surplus bound copies of any of such documents, books or pamphlets. All documents, books or pamphlets printed for the use and at the expense of the several executive departments of the City Government, shall be under the care and custody of the heads of the departments for which they are printed, subject, however, at all times, to the control of the City Council.

CITY HALL REFERENCE LIBRARY.

The Joint Standing Committee of the City Council on Printing are hereby empowered to establish, in the City Hall, a municipal library, to be designated the City Hall Reference Library; to have placed therein a copy of the several publications issued by the city, or any board or department thereof, and any copies of publications presented to the City of Boston from other sources; and they may purchase, or authorize the purchase of, other publications for the library; and they may remove or authorize the removal from the library and the disposal of any publications considered useless in the collection at any time; and they shall make all needful rules and regulations applicable to the library. The City Messenger shall have the care of the library established as herein provided, subject to such rules and regulations respecting the same as the said committee may adopt; and all expenses incurred under the provisions of this ordinance shall be charged to the appropriation for Printing.

In Committee on Printing,
December 1, 1877.

In accordance with the preceding ordinances, it is voted, by the Committee on Printing, that the following Standing Rules and Regulations be adopted, to supersede previous rules and regulations, and continue until modified by the Committee on Printing or by future action of the City Council.

§ 1. City Hall Reference Library.

(*a.*) The bookcases in the large Committee-room are placed in charge of the City Messenger; and he is to keep therein the City Hall Reference Library; which is to contain as complete a collection of the bound Volumes of the City Publications as he may be able to place therein, consisting of one copy of each volume; also such other Books of Reference, not issued by the city, as he may have in his charge; also a complete collection of Catalogues, Bulletins, Hand-books, Reports, etc., currently issued by the Boston Public Library; — keys to the collection to be kept by him, and such other persons as he may designate. The bound Files of the Boston Advertiser from Oct. 1, 1860, may be kept in the room of the Committee on Printing.

(*b.*) The City Hall Reference Library shall be specially for the use of the City Government, and the several Departments; and no book shall be taken therefrom, away from the City Hall, without the Messenger's consent, and a pledge of its prompt return; and the Messenger may keep a record of Books so taken and returned.

(*c.*) A printed Bulletin is to be issued annually, near the close of the municipal year, under direction of the Superintendent of Printing, the expense to be charged to the General Printing appropriation; — the publication to contain: (1.) a Revised List of the books in the City Hall Reference Library; (2.) a Revised List of the City Publications in the Public Library and Branches; (3.) a Statement of Important Indexes, and other information of the City Publications. This Publication is to be distributed in the same manner as the City Documents, as per § 4, *b;* and bound at the end of the last volume of Documents for the year.

§ 2. City Publications in Boston Public Library and Branches.

(*a.*) *Bound Books.* The City Messenger shall deliver to the Public Library 15 sets of bound Publications as issued by the city, of which three sets or more are to be designated at the Library as two-starred Books [**], which are not to be taken from the Library, but always retained for reference only; the remaining sets being for the ordinary public uses of the Central Library and its Branches.

§ 3. Current and Future Issues of City Publications.

(*a.*) *City Documents.* The regular edition of City Documents s to be 500 copies; but a less number of any Document may be ordered when the full number is not required.

(*b.*) *City Council Proceedings.* The reprint edition of Reports of City Council Proceedings is fixed at 500 copies; and it is to be regarded as a City Publication, subject to these regulations.

(*c.*) The following City Publications are considered as controlled by Special Orders of the City Council:—

Hand-book of the Organization, Rules and Orders, etc., of the City Government, issued annually in January.
Municipal Register, issued annually (in June) on completion of appointment of officers.
Auditor's Report, issued annually (in July) for the Financial Year ending April 30.
Future Revised editions of Statutes and Ordinances.
Other future occasional publications.

The following order, relating to Annual Reports, was passed by the City Council in January, 1877 (Proceedings, pp. 1 and 4), and is the usual annual order: "*Ordered*, That the several Heads of Departments and Boards of Direction of the various institutions be authorized to submit their annual reports in print, under the direction of the Superintendent of Printing."
The publications of the School Department are controlled by the School Committee.

§ 4. DISTRIBUTION AND RESERVATION OF CITY PUBLICATIONS.

(*a.*) *City Documents — Bound Sets.* 175 sets, as issued, are to be reserved, and bound in volumes at the close of the year; and they are to be distributed as follows:—
1 set to City Hall Reference Library, per § 1.
1 set to School Committee rooms.
15 sets to Boston Public Library and Branches, per § 2.
85 sets to Mayor, Aldermen, and members of Common Council, of the same year.
1 set to each of the principal heads of Departments under the City Government. Remaining copies to be distributed according to an annual list to be acted on by the Committee on Printing, or special votes of the committee.

(*b.*) *City Documents, Pamphlet copies.* The Pamphlet copies of City Documents are to be distributed by the City Messenger to the City Government and Departments, and to applicants therefor, unless otherwise provided in special cases, by vote of the Committee on Printing, or direction of the Chairman.

(*c.*) *Proceedings of City Council — Bound Sets.* 175 copies, as issued, are to be reserved, and bound at the close of the year, and they are to be subject to the same provisions as stated for Bound Documents, § 4, *a.*

(*d.*) *Proceedings of City Council — Pamphlet issues.* (325 copies.) These are to be distributed by the City Messenger to the residences of the Mayor, Aldermen, and members of the Common Council; also a duplicate file in City Hall to each member of the City Government, and a copy to each Department.

(*e.*) *Statutes and Ordinances.* The revised edition of 1876, in accordance with the Ordinance (see page 2), the City Messenger is authorized to sell at $5.00 per copy; also to supply one copy to each new member of the City Government. Any other distribution of copies will be regulated by special votes of the Committee on Printing.

(*f.*) Such reservations of bound books and pamphlets are to be held by the City Messenger as the Committee may occasionally vote; Books and Pamphlets not so reserved, are to be distributed at his discretion, unless otherwise provided in these regulations.

§ 5. Record of Editions of Bound Books and Reserved Copies and Annual Reports of Books on Hand.

(*a.*) The City Messenger shall keep a record of such editions of bound Books received, and of their distribution, for future reference, as the Committee on Printing may occasionally vote.

(*b.*) The City Messenger is requested to report annually, in October, to the Committee on Printing, the number of bound copies of the City Publications on hand Oct. 1.

§ 6. Disposal of Books and Pamphlets not Needed.

The City Messenger may at any time dispose of old books and pamphlets that in his judgment may not be required, the proceeds of the same to be paid to the City Collector, and reported to the Committee on Printing; but no publication shall be removed from the City Hall Reference Library, and disposed of, unless authorized by vote of the Committee on Printing, — with the exception that any publications from other cities may at any time be presented to the Public Library, at his discretion, and a list of the same reported to the Committee on Printing.

LIST OF BOOKS

IN THE

CITY HALL REFERENCE LIBRARY.

[See Page 4, § 1.]

CITY DOCUMENTS.

Years.	Vols.	Years.	Vols.	Years.	Vols.	Years.	Vols.
1834	1	1845	1	1856	2	1867	2
1835	1	1846	1	1857	2	1868	3
1836	1	1847	1	1858	2	1869	2
1837	1	1848	1	1859	2	1870	3
1838	1	1849	1	1860	2	1871	3
1839	1	1850	1	1861	2	1872	3
1840	1	1851	2	1862	2	1873	4
1841	1	1852	2	1863	2	1874	3
1842	1	1853	2	1864	2	1875	3
1843	1	1854	2	1865	2	1876	3
1844	1	1855	2	1866	2	1877	

LAWS AND ORDINANCES.

The following is a complete list of editions issued: —

1827. The Charter of the City of Boston, and Ordinances made and established by the Mayor, Aldermen and Common Council, with such Acts of the Legislature of Massachusetts as relate to the Government of said City. Compiled under direction of the Committee on Ordinances. Josiah Quincy, Mayor of the city, chairman.

1834. * The Charter and Ordinances of the City of Boston, together with the Acts of the Legislature relating to the City. Collated and revised by Thomas Wetmore and Edward G. Prescott. [See foot note, page 8.]

1850. The Charter and Ordinances of the City of Boston, together with the Acts of the Legislature relating to the City. Collated and revised by Peleg W. Chandler.

1856. The Charter and Ordinances of the City of Boston, together with the Acts of the Legislature relating to the City, and an Appendix, containing the Constitution of Massachusetts, Amendments to the Charter, etc. Compiled by A. K. P. Joy, F. L. Washburn and Charles Mayo.

1863. The Charter and Ordinances of the City of Boston, together with the Acts of the Legislature relating to the City, and other municipal laws. Codified and revised by George P. Sanger and John G. Locke.

1866. A Supplement to the Laws and Ordinances, containing: (1.) Rules and Regulations of the different departments; (2.) Special Acts incorporating companies to hold large amounts of real estate within the city limits; (3.) Agreements chiefly between the City of Boston and other corporations and parties in respect to the new lands on the Back Bay; (4.) Trusts; (5.) Decisions of Supreme Judicial Court on Municipal Law; (6.) Index to City Documents from 1834 to 1864. Compiled by H. T. Rockwell, James C. Davis and J. M. Bugbee.

1869. Ordinances and Rules and Orders of the City of Boston, together with the General and Special Statutes of the Massachusetts Legislature relating to the City. Compiled by John P. Healy, Samuel F. McCleary and James M. Bugbee.

1874. Ordinances and Rules and Orders of the City of Boston, passed between the 1st of January, 1870, and the 1st of August, 1874. Compiled by Samuel F. McCleary and James M. Bugbee.

1876. Ordinances of the City Council, and Rules and Orders of the Board of Aldermen of Boston, together with the General and Special Statutes of the Massachusetts Legislature relating to the City. Compiled by James M. Bugbee.

Pamphlet Supplements, compiled by the City Clerk, are issued annually in January, containing the Laws and Ordinances of the preceding year.

REPORTS OF PROCEEDINGS OF THE CITY COUNCIL.

In annual volumes for each municipal year, — being Reprints of Official Reports published by contract in the Boston Daily Transcript, beginning July 16, 1868. [Copies of 1868, 1872, 1873, are missing.*]

HISTORICAL AND MEMORIAL PUBLICATIONS.

(*Issued by the City.*)

1857. Memorial of the Inauguration of the Statue of Benjamin Franklin. Compiled by Nathaniel B. Shurtleff.

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* Missing volumes. Any person who can supply them is requested to notify the Superintendent of Printing.

1858. Proceedings at the Dedication of the Public Library.

1860. Annals of the Boston Primary School Committee, from its establishment in 1818, to its dissolution in 1855. Compiled by Joseph M. Wightman.

1864. Complimentary Banquet given by the City Council to Rear Admiral Lessoffsky and the officers of the Russian Fleet, June 7, 1864.

1865. Proceedings at the Dedication of the City Hospital, with the Act of the Legislature, Ordinances of the City Council, Rules and Orders of the Trustees, Plans of the Building, etc.

1865. A Memorial of Edward Everett. Compiled by James M. Bugbee.

1865. A memorial of Joshua Bates (founder of the Public Library). Compiled by James M. Bugbee.

1865. A Memorial of Abraham Lincoln, late President of the United States. Compiled by James M Bugbee.

1866. The City Hall, Boston; containing Report on Erection, ceremonies of the Laying of the Corner-stone, and at the Dedication, with Plans of Building.

1867. Erection and Dedication of the Soldiers' and Sailors' Monument in the Army and Navy Lot, in Mount Hope Cemetery, belonging to the City of Boston.

1868. History of the Introduction of Pure Water into the City of Boston, with a Description of the Water Works; illustrated by Maps and Plans. Compiled by Nathaniel J. Bradlee.

1876. History of the Boston Water Works, from 1868 to 1876, being a Supplement to the preceding History. Compiled by Desmond FitzGerald.

1871. A Topographical and Historical Description of Boston. By Nathaniel B. Shurtleff. [Stereotype plates owned by the city, in possession of Supt. of Printing.]

1872. A Memorial of Samuel F. B. Morse, from the City of Boston.

1873. A Memorial of Charles Sumner. Compiled by James M. Bugbee.

1875. Celebration of the Centennial Anniversary of the Battle of Bunker Hill. Compiled by James M. Bugbee.

1876. Celebration of the Centennial Anniversary of the Evacuation of Boston by the British Army, March 17, 1776; containing the Address, and a Chronicle of the Siege, by George E. Ellis; with a Description of the Washington Medal, and its Presentation to the City. Compiled by William H. Lee.

1876. The Declaration of Independence (with Fac-similes), and Washington's Farewell Address.
Oration delivered by Robert C. Winthrop, July 4, 1876.

1877. Dedication of the Monument on Boston Common erected to the Memory of the Men of Boston who died in the Civil War. Compiled by William H. Lee.

OTHER PUBLICATIONS ISSUED BY THE CITY.

1860. Proceedings and Debates of the Fourth National Quarantine and Sanitary Conventions, held in the City of Boston, June 14, 15, and 16, 1860. Reported for the City Council.

1863. Communications and Reports in relation to the Surveys of Boston Harbor, by the U. S. Commissioners detailed at the request of the City Council of Boston, 1859. (A collection of City Documents.)

1864. Alleged Abuses of Public Institutions. (A collection of City Documents.)

1866. A Manual for the Use of the Overseers of the Poor in the City of Boston, prepared by a Committee of the Board.

1867. Boston Police, Special Rules and Regulations.

1868–1874. Journal of the Common Council, prepared by W. P. Gregg, clerk. 7 vols.

1869. Charter and Locations of the several Street Railways in the City of Boston. Compiled by Samuel F. McCleary.

1870. First Medical and Surgical Report of the Boston City Hospital. Edited by J. Nelson Borland, physician, and David W. Cheever, surgeon.

1877. Medical and Surgical Reports of the Boston City Hospital. Second Series. Edited by David W. Cheever and F. W. Draper.

1871. Manual for the Joint Standing Committee of the City Council on Claims, containing a Digest of Decisions of the Supreme Judicial Court, relating to Defects and Obstructions in Public Streets. Compiled by James M. Bugbee.

1875. The Sanitary Condition of Boston: the Report of a Medical Commission, consisting of Charles E. Buckingham, Calvin Ellis, Richard M. Hodges, Samuel A. Green, and Thomas B. Curtis, appointed by the Board of Health of the City of Boston to investigate the sanitary condition of the city.

BOSTON PUBLIC LIBRARY PUBLICATIONS.

Index to Bates Hall Catalogue. 1861.
Supplement to same. 1866.
Bulletin, Vols. I., II. 1867–1875.
Prince Library Catologue.
Lower Hall Class Lists, viz.: —
1. Fiction and Juveniles.
2. Arts, Sciences, and Professions.
3. History, Biography, and Travels.
4. Books in Foreign Languages.
5. Poetry, Drama, etc.

Branch Catalogues, viz.: —
1. East Boston.
2. South Boston.
3. Roxbury.
4. Dorchester (with supplement).
5. Charlestown.
6. Brighton.

Handbook for Readers.

PUBLICATIONS NOT ISSUED BY THE CITY.

Arkansas — List of Officers of, 1876.
Alabama — City Code of Montgomery, 1875.
Annapolis — Government of.
Baltimore — Register of Officers of, 1876.
Boston — The History and Antiquities of Boston, the Capital of Massachusetts and Metropolis of New England, from its Settlement, in 1630, to the year 1770. Also, an Introductory History of the Discovery and Settlement of New England, with Notes Critical and Illustrative. By Samuel G. Drake. 1856.*
Illustrated Sketches and Business Directory. 1860.
†Boston Almanac, complete set, 1836 to 1878 inclusive.
‡ Boston Advertiser, Daily, Oct. 1, 1860, to March 5, 1862.
" " Semi-weekly, March 8, 1862, to Feb. 1, 1865.
" " Weekly, Feb. 2, 1865, to Jan. 1, 1877.
" " Daily, for 1877.
Board of Trade's Annual Reports, 1866, 1867.
Buffalo — City Directory for, 1876.
Charleston — Rules of the Government of.
Chelsea — School Committee Report, 1876.
Annual Reports, 1876.
Chicago — Revised Laws and Ordinances, 1851.
Finances of the City of, 1876.
Cincinnati — City Annual Reports, 1864, 1871, 1876.
Concord — Municipal Register, 1868.
Report of Receipts and Expenditures, 1876.
Reports of City of, 1869–76.
Denver — Revised Ordinances, 1875.
Charter of the City, 1876.
Charter and Ordinances, 1875.
Detroit — Annual Reports, 1876.

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* For brief descriptions of publications relating to the History of Boston, see Second Report of the Record Commissioners, Doc. 46, 1877, pp. ii. — v. For statement respecting Drake's History, see First Annual Bulletin, page 11.

† See note on page 15.

‡ These files begin before the election which was followed by the secession and rebellion of the Southern States, continuing to the present time, and will be continued in future. A summary of the contents of each paper appears on its first page. The following defects occur in the files. Any person able to supply the defective copies is requested to notify the Superintendent of Printing. The weekly paper was issued under the title of the Thursday Spectator or the Boston Weekly Spectator, from Dec. 12, 1867, to the end of 1871.

Daily, 1860, Oct. 10.	Daily, 1861, Jan. 4.	Semi-weekly, 1862, May 3.
" " " 15.	" " " 7.	" " " 14.
" " " 22.	" " May 3.	" " Dec. 6.
" " " 24.	" " June 27.	" 1870, Dec. 8.
" " " 27.	" " July 1.	
" " Nov. 24.	" " Sept. 27.	
" " " 30.	" " Oct. 11.	
" " Dec. 22.		

Fitchburg — List of City Government, 1877.
City Documents, 1876.
Gloucester — City Documents, 1876.
Hartford — Municipal Register, 1876.
Holyoke — Municipal Register, 1877.
Iowa — Government, 1877.
Jackson — Charter and Ordinances.
Kansas — Public Documents, 1876.
Lansing — Legislative Manual, 1877–8.
Lewiston — Charter and Ordinances, 1873.
Police Regulations, 1877.
Receipts and Expenditures, 1876.
Lowell — Charter and Ordinances, 1846, 1854, 1876.
City Documents, 1862, 1863, 1867–68, 1868–69, 1869–70, 1872–73, 1873–74, 1874–75.
Lynn — City Documents, 1870, 1872, 1873.
Lawrence — Revised Ordinances, 1875.
City Documents, 1875–6, 1876–7.
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Mississippi — Government, 1877.
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Nebraska — Legislative Manual, 1877.
Newport — City Documents, 1857–58, 1858–59, 1862–63, 1866–67, 1867–68, 1869–70, 1872–73, 1874–75.
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Annual Reports, 1876.

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Corporation Ordinances, 1859, 1866.
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City Documents, 1834.
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New Haven — Mayor's Message, 1877.
Government, 1877.
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Nevada — Government of.
Newton — Centennial Memorial.
Oregon — Message and Documents, 1876.
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Philadelphia — City Ordinances, 1864, 1865, 1866, 1867.
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Fourth do. do. 1862.
Fifth do. do. 1863.
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do. Controllers of Public Schools, 1864.
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City Documents, 1867–1873.
Charter and Ordinances, 1845, 1875.
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City Ordinances, 1875, 1876.
Rules of the Common Council.
Annual Message of Mayor, 1877.
Rhode Island — Manual 1876–7.
St. Louis — Message and Documents, 1873, 1874, 1875, 1876.
San Francisco — Municipal Reports, 1861–1865, 1871–1875.
Salem — City Documents 1870–71, 1873–74, 1874–75, 1875–76, 1876.
Somerville — Annual Reports, 1873, 1874.
List of City Government.
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Springfield, Mass. — List of City Government, 1877.
Taunton — Ordinances, 1865–70.
Municipal Register, 1873, 1875.
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Message and Documents, 1864–65 1874–75, 1875–76.
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Revised Army Regulations, 1863.
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do. Haywood's, 1853.
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Foreign " vol. 8.
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Wilmington, Del. — City Government, 1876–7.
Rules of Board of Health, 1877.
Rules of the Police Force.
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City Documents, 1848–57, 1863–68, 1873, 1874, 1875, 1876.
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INDEXES TO THE CITY PUBLICATIONS.

CITY DOCUMENTS.

An important Index to the City Documents, from 1834 to 1873, inclusive, alphabetically and chronologically arranged, prepared by James M. Bugbee, is bound in the first volume of documents for 1874. It is out of print in pamphlet form. Revised reprints are intended at intervals of five years.

PROCEEDINGS OF THE CITY COUNCIL.

Separate Indexes, for temporary use, in connection with the pamphlet issues of the City Council Proceedings, are issued early in March, May, September, and November; each issue comprising and superseding the previous one.

MISSING PUBLICATIONS.

The following Publications, stated in Bugbee's Index to the City Documents as available for consultation in City Hall, are not now existing in City Hall: —

1851. An Account of the Celebration Commemorative of the Opening of Railroad Communication between Boston and Canada, September 17th, 18th and 19th, 1851.

1853. A Memorial of Daniel Webster, edited by George S. Hillard.

1829. An Ordinance in relation to Schools.

Report on Petition of Warren White, *et als.*, concerning "Neck lands."

Auditor's Annual Report.

1831. Report of Committee on Elections.

Report on Division of the City into Wards.

Report on Removal of House of Correction from Leverett st.

Report of Committee on the Proposal of the Mechanic Association to Lease Quincy Hall.

1832. Report on House of Reformation.

1833. Rules and Regulations for House of Correction.

Memorial of Directors of the House of Reformation concerning Accommodation.

Tenth Annual Report on the House of Industry.

First Quarterly Report on the House of Correction.

Auditor's Estimates, March 14th, 1833.

An Ordinance in relation to Lumber.

Report on Salaries.

An Ordinance in Relation to the Measurement of Wood and Bark.

Report on Opening a new Street through Mill Creek.

Twentieth Annual Report of the Auditor.

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This set, noted on page 11, has the following specialties, with much other compact information. The Municipal, State, and National Registers are generally inserted in all the volumes.

1836 — Events, continued annually — Fire Dept. — Manner of choosing President and Vice-President.
1838 — Maps — Institutions and Associations — Fires — Prices of Flour, 1796 to 1837.
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1846 — Map of Railroads.
1847 — Map — Illustrated Railroad Sketches.
1848 — Mount Auburn.
1849 — Map, Vicinity of Boston — Schools, Illustrated — Weather Tables.
1850 — R. R. and Telegraph Map of N. E. — Public Improvements, illustrated.
1851 — Map — Public Improvements, illustrated — Property of Commonwealth.
1852 — Public Charities, illustrated.
1853 — Ancient and Modern Boston.
1854 — New Churches, illustrated.
1855 — Boston and its Business Resources.
1856 — Statistics of Industry — Public Library — Census Mass.
1857 — Mass. and her Business Resources — Mt. Auburn, illustrated.
1858 — Forest Hills, illustrated.
1859 — Harvard University, illustrated, — Franklin Street, illustrated — Back Bay.
1860 — Back Bay, illustrated.
1861 — Navy Yard, Marine Hospital, Minot's Light, illustrated.
1862 — Volunteers of New England.
1863 — Mass. Volunteers — Internal Revenue.
1864 — Business Street Directory.
1866 — Boston and Environs, illustrated — Constitution Mass.
1868 — Map, Boston and Vicinity.
1870 — Boston and its Territorial Acquisitions.
1871 — Charities of Boston (a complete classified compilation).
1872 — And subsequent years — Business Directory of Boston, etc.

LIST OF THE CITY PUBLICATIONS

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BOSTON PUBLIC LIBRARY.

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CITY DOCUMENTS.

(*Regular Series in Public Library.*)

Date.	Vols.	Shelf No.	Date.	Vols.	Shelf No.
1834	1	6356.1	1856	2	6356.1
1835	1	"	1857	2	"
1836	1	"	1858	2	"
1837	1	"	1859	2	"
1838	1	"	1860	2	"
1839	1	"	1861	2	"
1840	1	"	1862	2	"
1841	1	"	1863	2	"
1842	1	"	1864	2	"
1843	1	"	1865	2	"
1844	1	"	1866	2	"
1845	1	"	1867	2	"
1846	1	"	1868	3	"
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1848	1	"	1870	3	"
1849	1	"	1871	3	"
1850	1	"	1872	3	"
1851	2	"	1873	4	"
1852	2	"	1874	3	"
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1854	2	"	1876	3	"
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MISCELLANEOUS DOCUMENTS.

(*Not in Regular Series.*)

1770. A Short Narrative of the Horrid Massacre in Boston 5th of March; with some observations on the State of things prior to that Catastrophe. An Appendix containing the several Depositions. *4426.17

1771. An Oration, April 2d, 1771, by James Lovell, to commemorate the 5th of March, 1770. *4354.1
1772. Votes and Proceedings of the Freeholders, etc., of the town, October 28th and November 2d, 1772. *4429a.38
1773. An Oration, March 5th, 1773, by Benjamin Church, to commemorate the 5th of March, 1770. *4354.1
1774. An Oration, March 5th, 1774, by John Hancock, to commemorate the 5th of March, 1770. *4354.1
1775. An Oration, March 6th, to commemorate the 5th of March, 1770. By Joseph Warren. *4354.1
1777. An Oration, March 5th, to commemorate the 5th of March, 1770. By Benjamin Hichborn. *4422.51
1785. Oration, July 4th. By J. Gardiner. *4456.11
1789. do. do. By S. Stillman. *4456.11
1792. do. do. By J. Blake, jr. *4456.11
1795. do. do. By G. Blake. *4456.11
1797. do. do. By J. Callender. *4492.2
1798. do. do. By J. Quincy. *4394.38
1799. Eulogy on G. Washington. By G. R. Minot. 2340.26
1800. Oration, July 4th. By Joseph Hall. *4492.2
1801. do. do. By C. Paine. *Pph. v. 63
1802. do. July 5th. By W. Emerson. **E. 224.12
1804. do. July 4th. By T. Danforth. *4492.2
1805. do. do. By W. Dutton. *B. 170a.56
1807. do. do. By Peter O. Thatcher. *4492.2
1808. do. do. By A. Ritchie, jr. *4456.11
1809. do. do. By W. Tudor, jr. *4456.11
1810. do. do. By A. Townsend. *4456.11
1811. do. do. By J. Savage. *4456.11
1811. Board of Health, Laws, etc. *6340.5
1813. Finance Committee. Report. *6340.5
1813. Oration, July 4th. By E. St. L. Livermore. *4456.11
1814. Board of Health. Internal Health Regulations. *6340.5
1814. Oration, July 4th. By B. Whitwell. *4456.11
1815. do. do. By L. Shaw. *4456.11
1817. do. do. By E. T. Channing. *4456.11
1818. do. do. By F. C. Gray. *4456.11
1819. do. July 5th. By S. A. Wells. *4456.11
1820. Board of Health. An Account of the Plague, Yellow Fever, etc. *5797.68
1820. Overseers of the Poor. Accounts, 1820–21. *6359.21
1820. Proceedings of the School Committee, respecting an English Classical School. *6357.1
1820. Rules and Regulations of the Primary School Committee. *5367.1
1821. Finance. Report of Committee on Fees of Office. *6340.5
1821. Oration, July 4th. By C. G. Loring. *4456.11
1821. Report on House of Industry. *6359.21
1822. Oration, July 4th. By J. C. Gray, jr. *4456.11
1823. do. do By C. P. Curtis. *4456.11
1823, 27, 29, 30, 33, 35, 36. Regulations of School Committee. *6357.1

1823. Communication from Overseers of the Poor in relation to Almshouse at South Boston. *6359–21
1824. Address on the Organization of the City Government, May, 1, 1824. By J. Quincy, jr. *6340a.31
1825. Oration, July 4th. By C. Sprague. *4456.11
1826. Catalogue of the Public Latin School. *6357.1
1826. Address on the Organization of the City Government, January 2d. By J. Quincy, jr. E. 224.11
1826. Oration, July 4th. By J. Quincy, jr. *4456.11
1826. Report on the High School for Girls. *6357.50
1826. Discourse in Commemoration of the Lives and Services of J. Adams and T. Jefferson, August 2d. *6340a.31
1827. Regulations of the High School for Girls. *6357.1
1827. Report of Primary School Committee. *6357.1
1827, 30, 32, 33. Reports of House of Industry. *6359.21
1827. Oration July 4th. By W. P. Mason. *4456.11
1827. Address on the Organization of the City Government, January, 1827. *6340a.31
1828. Report of Committee on Monitorial Instruction. *6357.50
1828. Oration, July 4th. By B. Sumner. *4456.11
1828. Address on the Organization of the City Government, January 1, 1828. By J. Quincy. **E. 224.10
1829. Address on the Organization of the City Government, Jan. 5, 1829. By H. G. Otis. *6343.a31
Address to the Board of Aldermen, Jan. 3, 1829, on taking final leave of the office of Mayor. By Josiah Quincy. *6340a.31
Oration, July 4th. By J. T. Austin. *4456.11
Report of a Committee of the Common Council on modifying the Ordinance relative to Schools. *6357.1
1830. Address on the 17th Sept., the Close of the Second Century from the Settlement of the City. By J. Quincy. **E. 224.10
Address on the Removal of the Municipal Government to the Old State House. *6340a.31
An Ode pronounced Sept. 17, 1830, at the Centennial Celebration of the City. By C. Sprague. *6340a.31
Opinion of City Solicitor in relation to Salaries of Instructors. *6357.50
Oration, July 5th. By A. H. Everett. *4456.11
Report of the Committee on Public Instruction on repealing "An Ordinance providing for the Election and Compensation of Instructors of the Public Schools." *6357.1
Report of School Committee on the Present System of Public Instruction prescribed for the Grammar and Writing Schools *6357.1
School Committee Proceedings. *6357.50
1831. Eulogy on James Monroe, 25th of August. By J. Q. Adams. *Php.v.82
Oration, July 4th. *4456.11
Report of the Sub-Committee of the Mayhew School on Truant Absences. *6357.1

Report of the Committee appointed to consider the Expediency of adopting a Uniform Mode of Classification of the Schools. *6357.1
Reports on the Subject of a High School for Girls. *6357.1
1832. Oration, July 4th. J. Quincy, jr. *4456.11
1833. Oration, July 4th. E. G. Prescott. Pph. v. 260
Report of Medical Deputation to State of New York. *6340a.3
Ordinance relative to Causes of Sickness in Boston. *5340a.3
Report of the Committee on the Structure and Location of School-houses. *6357.1
Report of the Primary School Committee. 6357.1
1834. Communication from the Mayor on the subject of Introducing Water into the City. *6340a.31
Oration, July 4th. R. S. Fay. 4456.11
1835. Oration, July 4th. G. S. Hillard. *4456.11
Address to the City Council, Jan. 5, 1835. By T. Lyman, jr., Mayor. *6340a.31
Report of School Committee on By-laws. *6357.1
1836. Report of School Committee. *6357.1
Report of a Sub-Committee of the School Committee recommending the Introduction of a New Organization for the Public Grammar Schools. *6357.1
Eulogy on the Life and Character of James Madison, Sept. 27, 1836. *6340a.31
1843. Statement of the Charitable Funds under the superintendence of the Overseers of the Poor. *6340a.4
1845. Eulogy on Andrew Jackson, July 9, 1845. By Pliny Merrick. *4392.76.1
1846. Ceremonies at the Inauguration of the Statue of Franklin. *4442.14
1863. English High School Catalogue. *4395.65
Police. Special Rules and Regulations. *6348.7
1864. Complimentary Banquet given by the City Council to Rear Admiral Lessofsky, June 7, 1864. *6340a.12
1866. Police. Special Rules and Regulations. *6348.3
1867. Report on the Public Schools and the Systems of Public Instruction in New York, Philadelphia, etc. *5595.6
1868. Contract and Specification for Furnishing Water Pipes. *6340a.2
1870. Address on the Life and Character of Thomas Sherwin, Feb. 16, 1870. By R. C. Waterston. 4443.27
1870, 72, 74. Proceedings of the School Committee. *6350.8
1873. Digest of Statutes and Ordinances relating to the Public Health. *5769.63
1874. Charter and List of Special Statutes, with outline of the Municipal Government in some other cities. By James M. Bugbee. *6350a.53
Eulogy on Charles Sumner, April 29. By Carl Schurz. *2341.55
1875. Official Action of the Overseers of the Poor, in regard to the Death of Dr. Ira Allen, Sept. 6. 4442.78
Report on the David Sears Charity. *5575.68

Celebration, Centennial of Bunker Hill. *2351.52
Index to City Documents, by J. M. Bugbee. B. H. Desk, A. 35
Sanitary Condition of Boston. Report of a Medical Commission. *5765.67
Proceedings of the City Council, to Jan., 1876. *6350.2
1876. Celebration of the Centennial Anniversary of the Evacuation of Boston, March 17, 1776. *2351.57
History of the Boston Water Works, 1868–76. *6330a.5
Declaration, The, of Independence of the United States of America. 1776; and Washington's Farewell Address to the People of the United States. Fac-similes. *2320.53
Oration, 4th July, 1876. By R. C. Winthrop. *2355.67

CHARLESTOWN DOCUMENTS.

City Documents, 1871–72. *6346.52
do. 1871–73. Chn. Br.
Mayor's Addresses, 1847–73. *6340a.55
do. 1848–62. Chn. Br.
Statement of Expenses, 1826–27, 28–9, 33–37, 38–9, 40–42, 46–7. *4354.18
Treasurer's Report, 1842–44. Pph. v. 233,235
do. 1848–74. *6345.59
do. 1848–69. Chn. Br.
Municipal Register, 1848, 50, 52, 56, 64, 70. *4354.21
do. 1848. Chn. Br.
List of Persons Taxed, 1844. *Pph. v. 235
School Committee Reports, 1839–42, 45–47, 48–73. *6343.45
do. 1843–44. *Pph. v. 235
do. 1847–58. Chn. Br.
do. Rules. 1856, 68. *6350a.52
Public Library Reports, 1861–73. *6204.6
By-Laws, 1838, 46. *4353.5
Report [on] a City Charter, 1846. *4353.5
Rules and Orders of the City Council, 1847. *4353.5
Communication from the Mayor [relative to the Training Field]. *4353.5
Report of Joint Special Committee on Streets. *4353.5
Report of Committee on granting Licenses to sell Wines and Spirituous Liquors, 1847. *4353.5
Report of Special Committee of Common Council, upon Lynde and Second streets, 1848. *4353.5
Report on reducing the City Debt, 1848. *4353.5
Report [on] the Petition of A. R. Decoster and others, 1848. *4353.5
Funeral Oration on the death of Z. Taylor, July 31st, 1850. By B. Thompson. *4353.5
School Committee Report on Truancy, 1851. *6350a.52
Petition of Boston and Chelsea Railroad Company, and Act of Incorporation. *4353.5

Report relative to Monument avenue, 1854. *4353.5
Contract City of Charlestown with Woodlawn Cemetery, 1858. *4353.5
Report on Supplying the City with Pure Water. By George R. Baldwin and Charles L. Stevenson. 1860. *4354.19
Report on the Water Supply from Upper Mystic Pond. By B. Silliman, jr. 1862. *4354.25
Claim of the City against Bunker Hill Monument Association, 1865. *4353.5
Report of the Committee, relative to the Charlestown Poor's Fund, 1866. *4353.5
Ordinances, 1870. *4353.5
Annexation. Report of Commission, 1873. *4353.5

ROXBURY DOCUMENTS.

City Documents, 1853–67. B. H. *6351.2
1846–67. Rox. 6925.1
Municipal Register, 1846–49. B. H. *6086.19
1847–50, 52, 55, 57, 58, 60, 66, 67. *6350a.20
Receipts and Expenditures, 1843–44, 45–51, 59–60, 61–62, 63–67. B. H. *6351.4
School Committee Reports, 1838, 40, 42, 43, 45, 47–51, 53, 55–61, 64–66. B. H. *6341.2,3
School Regulations, 1838. B. H. *7598.5
1852. B. H. *6341.4
1865, 67. B. H. *6358.55
Overseers of the Poor, Report, 1849. B. H. *6350a.25
Mayors' Addresses, 1852, 54, 56–58, 60, 65, 67. B. H. *6341.1
Removal of the Almshouse and Purchase of Brook Farm. B. H. *6351.5
Annexation Report, 1849, 51. B. H. *6351.5
A Word for old Roxbury. B. H. *6351.5
Another Word for old Roxbury. B. H. *6351.5
West Roxbury, Official Reports, 1852–73. B. H. *6351.50
School Committee Reports, 1852–57, 59–62, 64. B. H. *6347.53
School Regulations, 1852, 55, 57, 58, 61, 64–66. B. H. *3117.9
Ceremony at the Dedication of the Soldiers' Monument, September 14th, 1871. *4457.50

DORCHESTER DOCUMENTS.

Report of Finances, 1839–69. B. H. *6344.10
Taxable Valuation, 1849, 50, 53, 55, 61, 65, 69. B. H. *6244.11
1849, 50, 53, 55, 61. Dor. 162.1
Statement of Expenditures, 1822–23. B. H. *6340.5
School Committee Report, 1840–71. B. H. *6341.7
1848, 51, 53–56, 58–65, 67–69. Dor. 162.2
School Regulations, 1840, 47, 50, 52, 53, 55–58, 60, 63–67. B. H. *6341.17

Rules of the Board of Health, 1855.	B. H. *6341.11
By-Laws adopted 1837, 55 and 58, with Warrant for Town Meeting, 1858.	*6341.11
Selectmen's Report for the year ending March 4th, 1850.	*6341.11

BRIGHTON DOCUMENTS.

Town Reports, 1863–73.	Bri. 177.32–40,67
Auditors' Reports, 1841–73.	B. H. *4358.6
1841–63.	Bri. 177.31
School Committee Reports, 1839–73.	B. H. *4358.5
1840–63.	Bri. 177.30
School Rules and Regulations, 1873.	Bri. 177.66
Holton Library Reports, 1865–73.	B. H. *6208.19
1865–73.	Bri. 177.41,67
Act for Annexation, 1873.	Bri. 176.120
Report on Annexation, 1873.	Bri. 176.121

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